



(1) GENERAL INFORMATION

- (i) APPLICANTS: Boon-Falleur, Thierry; Van der Bruggen, Thierry; Van den Eynde, Benoît; Van Pel, Aline; De Plaen, Etienne; Lurquin, Christophe; Chomez, Patrick; Traversari, Catia
- H2
(ii) TITLE OF INVENTION: Tumor Rejection Antigen Precursors, Tumor Rejection Antigens and Uses Thereof
- (iii) NUMBER OF SEQUENCES: 28
- (iv) CORRESPONDENCE ADDRESS:
(A) ADDRESSEE: Fulbright & Jaworski LLP
(B) STREET: 666 Fifth Avenue
(C) CITY: New York City
(D) STATE: New York
(E) COUNTRY: USA
(F) ZIP: 10103
- (v) COMPUTER READABLE FORM:
(A) MEDIUM TYPE: Diskette, 5.25 inch, 360 kb storage
(B) COMPUTER: IBM
(C) OPERATING SYSTEM: PC-DOS
(D) SOFTWARE: Wordperfect
- (vi) CURRENT APPLICATION DATA:
(A) APPLICATION NUMBER: 08/819,669
(B) FILING DATE: 17-March-1997
(C) CLASSIFICATION: 435
- (vii) PRIOR APPLICATION DATA:
(A) APPLICATION NUMBER: 08/142,368
(B) FILING DATE: 02-MAY-1994
- (viii) PRIOR APPLICATION DATA:
(A) APPLICATION NUMBER: PCT/US92/04354
(B) FILING DATE: 22-MAY-1992
- (ix) PRIOR APPLICATION DATA:
(A) APPLICATION NUMBER: 07/807,043
(B) FILING DATE: 12-DECEMBER-1991
- (x) PRIOR APPLICATION DATA:
(A) APPLICATION NUMBER: 07/764,364
(B) FILING DATE: 23-SEPTEMBER-1991
- (xi) PRIOR APPLICATION DATA:
(A) APPLICATION NUMBER: 07/728,838
(B) FILING DATE: 9-JULY-1991
- (xii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: 07/705,702
(B) FILING DATE: 23-May-1991

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Hanson, Norman D.
(B) REGISTRATION NUMBER: 30,946
(C) REFERENCE/DOCKET NUMBER: LUD 5253.5-US

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (212) 318-3168
(B) TELEFAX: (212) 752-5958

(2) INFORMATION FOR SEQUENCE ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 462 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

ACCACAGGAG AATGAAAAGA ACCCGGGACT CCCAAAGACG CTAGATGTGT GAAGATCCTG	60
ATCACTCATT GGGTGTCTGA GTTCTGCGAT ATTCATCCCT CAGCCAATGA GCTTACTGTT	120
CTCGTGGGGG GTTTGTGAGC CTTGGGTAGG AAGTTTGCA AGTTCCGCCT ACAGCTCTAG	180
CTTGTGAATT TGTACCCATT CACGTAAAAA AGTAGTCCAG AGTTTACTAC ACCCTCCCTC	240
CCCCCTCCCA CCTCGTGCTG TGCTGAGTT AGAAGTCTTC CTTATAGAAG TCTTCCGTAT	300
AGAACTCTTC CGGAGGAAGG AGGGAGGACC CCCCCCCTT GCTCTCCAG CATGCATTGT	360
GTCAACGCCA TTGCACTGAG CTGGTCGAAG AAGTAAGCCG CTAGCTTGCAG ACTCTACTCT	420
TATCTTAACT TAGCTCGGCT TCCTGCTGGT ACCCTTTGTG CC	462

(2) INFORMATION FOR SEQUENCE ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 675 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

ATG TCT GAT AAC AAG AAA CCA GAC AAA GCC CAC AGT GGC TCA GGT GGT	48
Met Ser Asp Asn Lys Lys Pro Asp Lys Ala His Ser Gly Ser Gly Gly	
5 10 15	
GAC GGT GAT GGG AAT AGG TGC AAT TTA TTG CAC CGG TAC TCC CTG GAA	96

Asp	Gly	Asp	Gly	Asn	Arg	Cys	Asn	Leu	Leu	His	Arg	Tyr	Ser	Leu	Glu	
				20				25				30				
GAA	ATT	CTG	CCT	TAT	CTA	GGG	TGG	CTG	GTC	TTC	GCT	GTT	GTC	ACA	ACA	
Glu	Ile	Leu	Pro	Tyr	Leu	Gly	Trp	Leu	Val	Phe	Ala	Val	Val	Thr	Thr	
				35				40				45				
AGT	TTT	CTG	GCG	CTC	CAG	ATG	TTC	ATA	GAC	GCC	CTT	TAT	GAG	GAG	CAG	
Ser	Phe	Leu	Ala	Leu	Gln	Met	Phe	Ile	Asp	Ala	Leu	Tyr	Glu	Glu	Gln	
				50				55				60				
TAT	GAA	AGG	GAT	GTG	GCC	TGG	ATA	GCC	AGG	CAA	AGC	AAG	CGC	ATG	TCC	
Tyr	Glu	Arg	Asp	Val	Ala	Trp	Ile	Ala	Arg	Gln	Ser	Lys	Arg	Met	Ser	
				65				70				75			80	
TCT	GTC	GAT	GAG	GAT	GAA	GAC	GAT	GAG	GAT	GAT	GAG	GAT	GAC	TAC	TAC	
Ser	Val	Asp	Glu	Asp	Glu	Asp	Asp	Glu	Asp	Asp	Glu	Asp	Asp	Tyr	Tyr	
				85				90				95				
GAC	GAC	GAG	GAC	GAC	GAC	GAC	GAT	GCC	TTC	TAT	GAT	GAT	GAG	GAT	GAT	
Asp	Asp	Glu	Asp	Asp	Asp	Asp	Asp	Asp	Ala	Phe	Tyr	Asp	Asp	Glu	Asp	Asp
				100				105				110				
GAG	GAA	GAA	GAA	TTG	GAG	AAC	CTG	ATG	GAT	GAT	GAA	TCA	GAA	GAT	GAG	
Glu	Glu	Glu	Glu	Leu	Glu	Asn	Leu	Met	Asp	Asp	Glu	Ser	Glu	Asp	Glu	
				115				120				125				
GCC	GAA	GAA	GAG	ATG	AGC	GTG	GAA	ATG	GGT	GCC	GGA	GCT	GAG	GAA	ATG	
Ala	Glu	Glu	Glu	Met	Ser	Val	Glu	Met	Gly	Ala	Gly	Ala	Glu	Glu	Met	
				130				135				140				
GGT	GCT	GGC	GCT	AAC	TGT	GCC	TGT	GTT	CCT	GGC	CAT	CAT	TTA	AGG	AAG	
Gly	Ala	Gly	Ala	Asn	Cys	Ala	Cys	Val	Pro	Gly	His	His	Leu	Arg	Lys	
				145				150				155			160	
AAT	GAA	GTG	AAG	TGT	AGG	ATG	ATT	TAT	TTC	TTC	CAC	GAC	CCT	AAT	TTC	
Asn	Glu	Val	Lys	Cys	Arg	Met	Ile	Tyr	Phe	Phe	His	Asp	Pro	Asn	Phe	
				165				170				175				
CTG	GTG	TCT	ATA	CCA	GTG	AAC	CCT	AAG	GAA	CAA	ATG	GAG	TGT	AGG	TGT	
Leu	Val	Ser	Ile	Pro	Val	Asn	Pro	Lys	Glu	Gln	Met	Glu	Cys	Arg	Cys	
				180				185				190				
GAA	AAT	GCT	GAT	GAA	GAG	GTT	GCA	ATG	GAA	GAG	GAA	GAA	GAA	GAA	GAG	
Glu	Asn	Ala	Asp	Glu	Glu	Val	Ala	Met	Glu							
				195				200				210				
GAG	GAG	GAG	GAG	GAA	GAG	GAA	ATG	GGA	AAC	CCG	GAT	GGC	TTC	TCA	CCT	
Glu	Met	Gly	Asn	Pro	Asp	Gly	Phe	Ser	Pro							
				220				225				230			235	
TAG															675	

(2) INFORMATION FOR SEQUENCE ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 228 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

GCATGCAGTT	GCAAAGCCCA	GAAGAAAGAA	ATGGACAGCG	GAAGAAGTGG	TTGTTTTTTT	60
TTCCCCTTCA	TTAATTTCT	AGTTTTAGT	AATCCAGAAA	ATTTGATTTT	GTTCTAAAGT	120
TCATTATGCA	AAGATGTCAC	CAACAGACTT	CTGACTGCAT	GGTGAACTTT	CATATGATAC	180
ATAGGATTAC	ACTTGTACCT	GTAAAAAATA	AAAGTTGAC	TTGCATAC		228

(2) INFORMATION FOR SEQUENCE ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1365 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

ACCACAGGAG AATGAAAAGA ACCCGGGACT CCCAAAGACG CTAGATGTGT	50
GAAGATCCTG ATCACTCATT GGGTGTCTGA GTTCTGCGAT ATTCACTCCCT	100
CAGCCAATGA GCTTACTGTT CTCGTGGGG GTTTGTGAGC CTTGGGTAGG	150
AAGTTTGCA AGTTCCGCCT ACAGCTCTAG CTTGTGAATT TGTACCCCTT	200
CACGTAAAAA AGTAGTCCAG AGTTTACTAC ACCCTCCCTC CCCCCCTCCC	250
CCTCGTGCTG TGCTGAGTTT AGAAGTCTTC CTTATAGAAG TCTTCCGTAT	300
AGAACTCTTC CGGAGGAAGG AGGGAGGACC CCCCCCCTTT GCTCTCCCAG	350
CATGCATTGT GTCAACGCCA TTGCACTGAG CTGGTCAAG AAGTAAGCCG	400
CTAGCTTGCG ACTCTACTCT TATCTTAACT TAGCTCGGCT TCCTGCTGGT	450
ACCCCTTTGTG CC	462
ATG TCT GAT AAC AAG AAA CCA GAC AAA GCC CAC AGT GGC TCA	504
GGT GGT GAC GGT GAT GGG AAT AGG TGC AAT TTA TTG CAC CGG	546
TAC TCC CTG GAA GAA ATT CTG CCT TAT CTA GGG TGG CTG GTC	588
TTC GCT GTT GTC ACA ACA AGT TTT CTG GCG CTC CAG ATG TTC	630
ATA GAC GCC CTT TAT GAG GAG CAG TAT GAA AGG GAT GTG GCC	672
TGG ATA GCC AGG CAA AGC AAG CGC ATG TCC TCT GTC GAT GAG	714
GAT GAA GAC GAT GAG GAT GAG GAT GAC TAC TAC GAC GAC	756
GAG GAC GAC GAC GAT GCC TTC TAT GAT GAT GAG GAT GAT	798
GAG GAA GAA TTG GAG AAC CTG ATG GAT GAT GAA TCA GAA	840
GAT GAG GCC GAA GAA GAG ATG AGC GTG GAA ATG GGT GCC GGA	882
GCT GAG GAA ATG GGT GCT GGC GCT AAC TGT GCC TGT GTT CCT	924
GGC CAT CAT TTA AGG AAG AAT GAA GTG AAG TGT AGG ATG ATT	966
TAT TTC TTC CAC GAC CCT AAT TTC CTG GTG TCT ATA CCA GTG	1008
AAC CCT AAG GAA CAA ATG GAG TGT AGG TGT GAA AAT GCT GAT	1050
GAA GAG GTT GCA ATG GAA GAG GAA GAA GAA GAG GAG GAG	1092
GAG GAG GAA GAG GAA ATG GGA AAC CCG GAT GGC TTC TCA CCT	1134
TAG	1137
GCATGCAGTT GCAAAGCCCA GAAGAAAGAA ATGGACAGCG GAAGAAAGTGG	1187
TTGTTTTTT TTCCCTTCA TTAATTTCT AGTTTTAGT AATCCAGAAA	1237
ATTGATTTT GTTCTAAAGT TCATTATGCA AAGATGTCAC CAACAGACTT	1287
CTGACTGCAT GGTGAACCTT CATATGATAC ATAGGATTAC ACTTGTACCT	1337
GTTAAAAATA AAAGTTGAC TTGCATAC	1365

(2) INFORMATION FOR SEQUENCE ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4698 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

ACCACAGGAG	AATGAAAAGA	ACCCGGGACT	CCCAAAGACG	CTAGATGTGT	50
GAAGATCCTG	ATCACTCATT	GGGTGTCTGA	GTTCTGCGAT	ATTCATCCCT	100
CAGCCAATGA	GCTTACTGTT	CTCGTGGGGG	GTTTGTGAGC	CTTGGGTAGG	150
AAGTTTGCA	AGTTCCGCCT	ACAGCTCTAG	CTTGTGAATT	TGTACCCCTT	200
CACGTAAAAA	AGTAGTCCAG	AGTTTACTAC	ACCCTCCCTC	CCCCCTCCCA	250
CCTCGTGCTG	TGCTGAGTTT	AGAAGTCTTC	CTTATAGAAG	TCTTCCGTAT	300
AGAACTCTTC	CGGAGGAAGG	AGGGAGGACC	CCCCCCCCTT	GCTCTCCAG	350
CATGCATTGT	GTCAACGCCA	TTGCACTGAG	CTGGTCAAG	AAGTAAGCCG	400
CTAGCTTGC	ACTCTACTCT	TATCTTAACT	TAGCTCGGCT	TCCTGCTGGT	450
ACCCTTGTG	CC				462
ATG TCT GAT AAC AAG AAA CCA GAC AAA GCC CAC AGT GGC TCA					504
GGT GGT GAC GGT GAT GGG AAT AGG TGC AAT TTA TTG CAC CGG					546
TAC TCC CTG GAA GAA ATT CTG CCT TAT CTA GGG TGG CTG GTC					588
TTC GCT GTT GTC ACA ACA AGT TTT CTG GCG CTC CAG ATG TTC					630
ATA GAC GCC CTT TAT GAG GAG CAG TAT GAA AGG GAT GTG GCC					672
TGG ATA GCC AGG CAA AGC AAG CGC ATG TCC TCT GTC GAT GAG					714
GAT GAA GAC GAT GAG GAT GAT GAG GAT GAC TAC TAC GAC GAC					756
GAG GAC GAC GAC GAT GCC TTC TAT GAT GAT GAG GAT GAT GAT					798
GAG GAA GAA TTG GAG AAC CTG ATG GAT GAT GAA TCA GAA					840
GAT GAG GCC GAA GAA GAG ATG AGC GTG GAA ATG GGT GCC GGA					882
GCT GAG GAA ATG GGT GCT GGC GCT AAC TGT GCC T					916
GTGAGTAACC CGTGGTCTTT ACTCTAGATT CAGGTGGGGT GCATTCTTTA					966
CTCTTGCCCA CATCTGTAGT AAAGACCACA TTTGGTTGG GGGTCATTGC					1016
TGGAGCCATT CCTGGCTCTC CTGTCCACGC CTATCCCCGC TCCTCCCATC					1066
CCCCACTCCT TGCTCCGCTC TCTTTCTTT TCCCACCTTG CCTCTGGAGC					1116
TTCAGTCCAT CCTGCTCTGC TCCCTTTCCC CTTGCTCTC CTTGCTCCCC					1166
TCCCCCTCGG CTCAACTTTT CGTGCCTTCT GCTCTCTGAT CCCAACCCCTC					1216
TTCAGGCTTC CCCATTGCT CCTCTCCCGA AACCCCTCCCC TTCCGTGTTCC					1266
CCTTTTCGCG CCTTTCTTT CCTGCTCCCC TCCCCCTCCC TATTACCTT					1316
TCACCAGCTT TGCTCTCCCT GCTCCCCCTCC CCCTTTGCA CTTTTCTTT					1366
TCCTGCTCCC CTCCCCCTCC CCTCCCTGTT TACCCCTCAC CGCTTTCCCT					1416
CTACCTGCTT CCCTCCCCCT TGCTGCTCCC TCCCTATTG CATTTCGGG					1466
TGCTCCTCCC TCCCCCTCCC CCTCCCTCCC TATTGCAATT TTCGGGTGCT					1516
CCTCCCTCCC CCTCCCCAGG CCTTTTTTTT TTTTTTTTTT TTTTTTTTTT					1566
TTGGTTTTTC GAGACAGGGT TTCTCTTTGT ATCCCTGGCT GTCCCTGGCAC					1616
TCACTCTGTA GACCAGGCTG GCCTCAAAC CAGAAATCTG CCTGCCTCTG					1666
CCTCCCAAAT GCTGGGATTA AAGGCTTGCA CCAGGACTGC CCCAGTGCAG					1716
GCCTTTCTTT TTTCTCCTCT CTGGTCTCCC TAATCCCTT TCTGCATGTT					1766
AACTCCCCCTT TTGGCACCTT TCCTTTACAG GACCCCCCTCC CCCTCCCTGT					1816
TTCCCTTCCG GCACCCCTCC TAGCCCTGCT CTGTTCCCTC TCCCTGCTCC					1866
CCTCCCCCTC TTTGCTCGAC TTTAGCAGC CTTACCTCTC CCTGCTTTCT					1916
GCCCCGTTCC CCTTTTTTGT GCCTTCTTC CTGGCTCCCC TCCACCTTCC					1966
AGCTCACCTT TTTGTTGTT TGTTGTTTG GTTGTGTTGG TTGCTTTTTT					2016
TTTTTTTTT GCACCTTGTT TTCCAAGATC CCCCTCCCCC TCCGGCTTCC					2066
CCTCTGTGTG CCTTTCCCTGT TCCCTCCCCC TCGCTGGCTC CCCCTCCCTT					2116
TCTGCCTTTC CTGTCCCTGC TCCCTTCTCT GCTAACCTT TAATGCCTTT					2166
CTTTTCTAGA CTCCCCCTCC CAGGCTTGCT GTTTGCTTCT GTGCACTTTT					2216
CCTGACCCCTG CTCCCCCTCC CCTCCCCAGCT CCCCTCTT TTCCCACCTC					2266
CCTTTCTCCA GCCTGTCAAC CCTCCTTCTC TCCCTCTGT TTCTCCACT					2316
TCCTGCTTCC TTTACCCCTT CCCTCTCCCT ACTCTCCTCC CTGCCTGCTG					2366

GACTTCCTCT	CCAGCCGCC	AGTTCCCTGC	AGTCCTGGAG	TCTTCCCTGC		2416
CTCTCTGTCC	ATCACTTCCC	CCTAGTTCA	CTTCCCTTTC	ACTCTCCCT		2466
ATGTGTCTCT	CTTCCTATCT	ATCCCTTCCT	TTCTGTCCCC	TCTCCTCTGT		2516
CCATCACCTC	TCTCCTCCCT	TCCCTTCCT	CTCTCTTCCA	TTTCTTCCA		2566
CCTGCTTCTT	TACCCCTGCC	CTCCCATTGC	CCTCTTACCT	TTATGCCAT		2616
TCCATGTCCC	CTCTCAATT	CCTGTCCCC	TGTGCTCCCT	CACATCTCC		2666
ATTTCCCTCT	TTCTCCCTTA	GCCTCTTCTT	CCTCTTCTCT	TGTATCTCCC		2716
TTCCCTTGC	TTCTCCCTCC	TCCTTCCCC	TCCTCCATG	CCCTCTACTC		2766
TACTTGATCT	TCTCTCCTCT	CCACATACCC	TTTTCCCTT	CCACCCGCC		2816
CTTGCTCCCC	AGACCCTACA	GTATCCTGTG	CACAGGAAGT	GGGAGGGGCC		2866
ATCAACAACA	AGGAGGCAAG	AAACAGAGCA	AAATCCAAA	ATCAGCAGGA		2916
AAGGCTGGAT	GAAAATAAGG	CCAGGTTCTG	AGGACAGCTG	GAATCTAGCC		2966
AAAGTGGCTCC	TATAACCTA	AGTACCAAGG	GAGAAAGTGA	TGGTGAAGTT		3016
CTTGATCCTT	GCTGCTTCTT	TTACATATGT	TGGCACATCT	TTCTCAAATG		3066
CAGGCCATGC	TCCATGCTTG	GCGCTTGCTC	AGCGTGGTTA	AGTAATGGGA		3116
GAATCTGAAA	ACTAGGGGCC	AGTGGTTGT	TTTGGGGACA	AATTAGCACG		3166
TAGTGATATT	TCCCCCTAAA	AATTATAACA	AACAGATTCA	TGATTTGAGA		3216
TCCTTCTACA	GGTGAGAAGT	GGAAAAATTG	TCACTATGAA	GTCTTTTTA		3266
GGCTAAAGAT	ACTTGGAACC	ATAGAAGCGT	TGTTAAAATA	CTGCTTTCTT		3316
TTGCTAAAAT	ATTCTTTCTC	ACATATTCA	ATTCTCCAG			3355
GT GTT CCT GGC CAT CAT TTA AGG AAG AAT GAA GTG AAG TGT						3396
AGG ATG ATT TAT TTC TTC CAC GAC CCT AAT TTC CTG GTG TCT						3438
ATA CCA GTG AAC CCT AAG GAA CAA ATG GAG TGT AGG TGT GAA						3480
AAT GCT GAT GAA GAG GTT GCA ATG GAA GAG GAA GAA GAA GAA						3522
GAG GAG GAG GAG GAA GAG ATG GGA AAC CCG GAT GGC						3564
TTC TCA CCT TAG						3576
GCATGCAGGT ACTGGCTTCA CTAACCAACC ATTCTAAC						3626
GCTAAGAGCA TCTTTTAAA AAATATTATT GGTAACCTAA ACAATTGTTA						3676
TCTTTTACA TTAATAAGTA TTAAATTAAAT CCAGTATACA GTTTAAGAA						3726
CCCTAAGTTA AACAGAACGTC AATGATGTCT AGATGCCTGT TCTTAGATT						3776
GTAGTGAGAC TACTTACTAC AGATGAGAAG TTGTTAGACT CGGGAGTAGA						3826
GACCAGTAAA AGATCATGCA GTGAAATGTG GCCATGGAAA TCGCATATTG						3876
TTCTTATAGT ACCTTGAGA CAGCTGATAA CAGCTGACAA AAATAAGTGT						3926
TTCAAGAAAG ATCACACGCC ATGGTTACA TGCAAATTAT TATTGTCG						3976
TTCTGATTTT TTTCATTCT AGACCTGTGG TTTAAAGAG ATGAAAATCT						4026
CTTAAATTTT CCTTCATCTT TAATTTCTT TAACTTTAGT TTTTTCACT						4076
TAGAATTCAA TTCAAATTCT TAATTCAATC TTAATTTTA GATTCTTAA						4126
AATGTTTTT AAAAAAAATG CAAATCTCAT TTTAAGAGA TGAAAGCAGA						4176
GTAACTGGGG GGCTTAGGGA ATCTGTAGGG TTGCGGTATA GCAATAGGGA						4226
GTTCTGGTCT CTGAGAAGCA GTCAGAGAGA ATGGAAAACC AGGCCCTTGC						4276
CAGTAGGTTA GTGAGGTTGA TATGATCAGA TTATGGACAC TCTCAAATC						4326
ATAAAATACTC TAACAGCTAA GGATCTCTGA GGGAAACACA ACAGGGAAAT						4376
ATTTTAGTTT CTCCTTGAGA AACAAATGACA AGACATAAAA TTGGCAAGAA						4426
AGTCAGGAGT GTATTCTAAT AAGTGTGCT TATCTTTAT TTTCTCTAC						4476
AGTTGCAAAG CCCAGAAGAA AGAAATGGAC AGCGGAAGAA GTGGTTGTTT						4526
TTTTTCCCTT TTCATTAATT TTCTAGTTT TAGTAATCCA GAAAATTGAA						4576
TTTTGTTCTA AAGTCATTA TGCAAAGATG TCACCAACAG ACTTCTGACT						4626
GCATGGTGAA CTTTCATATG ATACATAGGA TTACACTTGT ACCTGTTAAA						4676
AATAAAAGTT TGACTTGCAT AC						4698

(2) INFORMATION FOR SEQUENCE ID NO: 6:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

Leu Pro Tyr Leu Gly Trp Leu Val Phe
5

(2) INFORMATION FOR SEQUENCE ID NO: 7:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2419 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: genomic DNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

GGATCCAGGC	CCTGCCAGGA	AAAATATAAG	GGCCCTGCGT	GAGAACAGAG	50
GGGGTCATCC	ACTGCATGAG	AGTGGGGATG	TCACAGAGTC	CAGCCCACCC	100
TCCTGGTAGC	ACTGAGAACG	CAGGGCTGTG	CTTGCCTGCT	GCACCCCTGAG	150
GGCCCGTGGA	TTCCTCTTCC	TGGAGCTCCA	GGAACCAGGC	AGTGAGGCCT	200
TGGTCTGAGA	CAGTATCCTC	AGGTCACAGA	GCAGAGGATG	CACAGGGTGT	250
GCCAGCAGTG	AATGTTGCC	CTGAATGCAC	ACCAAGGGCC	CCACCTGCCA	300
CAGGACACAT	AGGACTCCAC	AGAGTCTGGC	CTCACCTCCC	TACTGTCACT	350
CCTGTAGAAT	CGACCTCTGC	TGGCCGGCTG	TACCCCTGAGT	ACCCTCTCAC	400
TTCCTCCTTC	AGGTTTCAG	GGGACAGGCC	AACCCAGAGG	ACAGGATTCC	450
CTGGAGGCCA	CAGAGGAGCA	CCAAGGAGAA	GATCTGTAAG	TAGGCCTTTG	500
TTAGAGTCTC	CAAGGTTCA	TTCTCAGCTG	AGGCCTCTCA	CACACTCCCT	550
CTCTCCCCAG	GCCTGTGGGT	CTTCATTGCC	CAGCTCCTGC	CCACACTCCT	600
GCCTGCTGCC	CTGACGAGAG	TCATCATGTC	TCTTGAGCAG	AGGAGTCTGC	650
ACTGCAAGCC	TGAGGAAGCC	CTTGAGGCC	AACAAGAGGC	CCTGGGCCTG	700
GTGTGTGTGC	AGGCTGCCAC	CTCCTCCTCC	TCTCCTCTGG	TCCTGGGCAC	750
CCTGGAGGAG	GTGCCCACTG	CTGGGTCAAC	AGATCCTCCC	CAGAGTCCTC	800
AGGGAGCCTC	CGCCTTCCC	ACTACCATCA	ACTTCACTCG	ACAGAGGCAA	850
CCCAGTGAGG	GTTCCAGCAG	CCGTGAAGAG	GAGGGGCCAA	GCACCTCTTG	900
TATCCTGGAG	TCCTTGTTC	GAGCAGTAAT	CACTAAGAAG	GTGGCTGATT	950
TGGTTGGTTT	TCTGCTCCTC	AAATATCGAG	CCAGGGAGCC	AGTCACAAAG	1000
GCAGAAATGC	TGGAGAGTGT	CATCAAAAT	TACAAGCACT	GTTCCTCTGA	1050
GATCTCGGC	AAAGCCTCTG	AGTCCTTGCA	GCTGGTCTTT	GGCATTGACG	1100
TGAAGGAAGC	AGACCCACC	GGCCACTCCT	ATGTCCTTGT	CACCTGCCTA	1150
GGTCTCTCCT	ATGATGGCCT	GCTGGGTGAT	AATCAGATCA	TGCCCAAGAC	1200
AGGCTTCCTG	ATAATTGTCC	TGGTCATGAT	TGCAATGGAG	GGCGGCCATG	1250
CTCCTGAGGA	GGAAATCTGG	GAGGAGCTGA	GTGTGATGGA	GGTGTATGAT	1300
GGGAGGGAGC	ACAGTGCCTA	TGGGGAGCCC	AGGAAGCTGC	TCACCCAAGA	1350
TTTGGTGCAG	GAAAAGTACC	TGGAGTACGG	CAGGTGCCGG	ACAGTGATCC	1400

CGCACGCTAT	GAGTT CCTGT	GGGGTCCAAG	GGCCCTCGCT	GAAACCAGCT	1450
ATGTGAAAGT	CCTTGAGTAT	GTGATCAAGG	TCAGTGCAAG	AGTCGCTTT	1500
TTCTTCCCAT	CCCTGCGTGA	AGCAGCTTTG	AGAGAGGAGG	AAGAGGGAGT	1550
CTGAGCATGA	GTTGCAGCCA	AGGCCAGTGG	GAGGGGGACT	GGGCCAGTGC	1600
ACCTTCCAGG	GCCGCGTCCA	GCAGCTTCCC	CTGCCTCGTG	TGACATGAGG	1650
CCCATTCTTC	ACTCTGAAGA	GAGCGGTCA	TGTTCTCAGT	AGTAGGTTTC	1700
TGTTCTATTG	GGTGACTTGG	AGATTTATCT	TTGTTCTCTT	TTGGAATTGT	1750
TCAAATGTT	TTTTTAAGG	GATGGTTGAA	TGAACCTTCAG	CATCCAAGTT	1800
TATGAATGAC	AGCAGTCACA	CAGTTCTGTG	TATATAGTTT	AAGGGTAAGA	1850
GTCTTGTGTT	TTATTCAGAT	TGGGAAATCC	ATTCTATTTT	GTGAATTGGG	1900
ATAATAACAG	CAGTGGAAATA	AGTACTTAGA	AATGTGAAAAA	ATGAGCAGTA	1950
AAATAGATGA	GATAAAGAAC	TAAAGAAATT	AAGAGATAGT	CAATTCTTGC	2000
CTTATACCTC	AGTCTATTCT	GTAAAATTT	TAAAGATATA	TGCATACCTG	2050
GATTTCCCTG	GCTTCTTGA	GAATGTAAGA	GAAATTAAAT	CTGAATAAAG	2100
AATTCTCCT	GTTCACTGGC	TCTTTCTTC	TCCATGCACT	GAGCATCTGC	2150
TTTTTGGAAAG	GCCCTGGTT	AGTAGTGGAG	ATGCTAAGGT	AAGCCAGACT	2200
CATACCCACC	CATAGGGTCG	TAGAGTCTAG	GAGCTGCAGT	CACGTAATCG	2250
AGGTGGCAAG	ATGTCCTCTA	AAGATGTAGG	GAAAAGTGAG	AGAGGGGTGA	2300
GGGTGTGGGG	CTCCGGGTGA	GAGTGGTGGA	GTGTCAATGC	CCTGAGCTGG	2350
GGCATTGTTGG	GCTTGGGAA	ACTGCAGTTC	CTTCTGGGGG	AGCTGATTGT	2400
AATGATCTG	GGTGGATCC				2419

(2) INFORMATION FOR SEQUENCE ID NO: 8:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 5674 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: genomic DNA
- (ix) FEATURE:
 - (A) NAME/KEY: MAGE-1 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

CCCGGGGCAC	CACTGGCATC	CCTCCCCCTA	CCACCCCCAA	TCCCTCCCTT	50
TACGCCACCC	ATCCAAACAT	CTTCACGCTC	ACCCCCAGCC	CAAGCCAGGC	100
AGAATCCGGT	TCCACCCCTG	CTCTCAACCC	AGGGAAGGCC	AGGTGCCAG	150
ATGTGACGCC	ACTGACTTGA	GCATTAGTGG	TTAGAGAGAA	GCGAGGTTTT	200
CGGTCTGAGG	GGCGGCTTGA	GATCGGTGGA	GGGAAGCGGG	CCCAGCTCTG	250
TAAGGAGGCA	AGGTGACATG	CTGAGGGAGG	ACTGAGGACC	CACTTACCCC	300
AGATAGAGGA	CCCCAAATAA	TCCCTTCATG	CCAGTCCTGG	ACCATCTGGT	350
GGTGGACTTC	TCAGGCTGGG	CCACCCCCAG	CCCCCTTGCT	GCTTAAACCA	400
CTGGGGACTC	GAAGTCAGAG	CTCCGTGTGA	TCAGGGAAGG	GCTGCTTAGG	450
AGAGGGCAGC	GTCCAGGCTC	TGCCAGACAT	CATGCTCAGG	ATTCTCAAGG	500
AGGGCTGAGG	GTCCCTAAGA	CCCCACTCCC	GTGACCCAAC	CCCCACTCCA	550
ATGCTCACTC	CCGTGACCCA	ACCCCCCTT	CATTGTCATT	CCAACCCCCA	600
CCCCACATCC	CCCACCCCCAT	CCCTCAACCC	TGATGCCCAT	CCGCCAGGC	650
ATTCCACCCCT	CACCCCCCACC	CCCACCCCCA	CGCCCACTCC	CACCCCCACC	700
CAGGCAGGAT	CCGGTTCCCG	CCAGGAAACA	TCCGGGTGCC	CGGATGTGAC	750
GCCACTGACT	TGCGCATTGT	GGGGCAGAGA	GAAGCGAGGT	TTCCATTCTG	800

AGGGACGGCG	TAGAGTCGG	CCGAAGGAAC	CTGACCCAGG	CTCTGTGAGG	850
AGGCAAGGTG	AGAGGCTGAG	GGAGGACTGA	GGACCCCGCC	ACTCAAATA	900
GAGAGCCCCA	AATATTCCAG	CCCCGCCCTT	GCTGCCAGCC	CTGGCCCACC	950
CGCGGGAAAGA	CGTCTCAGCC	TGGGCTGCC	CCAGACCCCT	GCTCCAAAAG	1000
CCTTGAGAGA	CACCAAGGTT	TTCTCCCCAA	GCTCTGGAAT	CAGAGGTTGC	1050
TGTGACCAGG	GCAGGACTGG	TTAGGAGAGG	GCAGGGCACA	GGCTCTGCCA	1100
GGCATCAAGA	TCAGCACCCA	AGAGGGAGGG	CTGTGGGCC	CCAAGACTGC	1150
ACTCCAATCC	CCACTCCCCAC	CCCATTGCA	TTCCCATTCC	CCACCCAACC	1200
CCCATCTCCT	CAGCTACACC	TCCACCCCCA	TCCCTACTCC	TACTCCGTCA	1250
CCTGACCACC	ACCCTCCAGC	CCCAGCACCA	GCCCCAACCC	TTCTGCCACC	1300
TCACCCTCAC	TGCCCCAAC	CCCACCCCTCA	TCTCTCTCAT	GTGCCCACT	1350
CCCATCGCCT	CCCCCATTCT	GGCAGAATCC	GGTTTGGCCC	TGCTCTCAAC	1400
CCAGGGAAAGC	CCTGGTAGGC	CCGATGTGAA	ACCACTGACT	TGAACCTCAC	1450
AGATCTGAGA	GAAGGCCAGGT	TCATTTAATG	GTTCTGAGGG	GC GGCTTGAG	1500
ATCCACTGAG	GGGAGTGGTT	TTAGGCTCTG	TGAGGAGGCA	AGGTGAGATG	1550
CTGAGGGAGG	ACTGAGGAGG	CACACACCCC	AGGTAGATGG	CCCCAAATG	1600
ATCCAGTACC	ACCCCTGCTG	CCAGCCCTGG	ACCACCCGGC	CAGGACAGAT	1650
GTCTCAGCTG	GACCACCCCC	CGTCCCGTCC	CACTGCCACT	TAACCCACAG	1700
GGCAATCTGT	AGTCATAGCT	TATGTGACCG	GGGCAGGGTT	GGTCAGGAGA	1750
GGCAGGGCCC	AGGCATCAAG	GTCCAGCATE	CGCCCCGGCAT	TAGGGTCAGG	1800
ACCCTGGGAG	GGAAC TGAGG	GTCCCCCACC	CACACCTGTC	TCCTCATCTC	1850
CACCGCCACC	CCACTCACAT	TCCCATACTT	ACCCCTTACCC	CCCAACCTCA	1900
TCTTGTCAAGA	ATCCCTGCTG	TCAACCCACG	GAAGCCACGG	GAATGGCGGC	1950
CAGGCACTCG	GATCTTGACG	TCCCCATCCA	GGGTCTGATG	GAGGGAAGGG	2000
GCTTGAACAG	GGCCTCAGGG	GAGCAGAGGG	AGGGCCCTAC	TGCGAGATGA	2050
GGGAGGCCTC	AGAGGACCCA	GCACCCCTAGG	ACACCGCACC	CCTGTCTGAG	2100
ACTGAGGCTG	CCACTTCTGG	CCTCAAGAAT	CAGAACGATG	GGGACTCAGA	2150
TTGCATGGGG	GTGGGACCCA	GGCCTGCAAG	GCTTACGCGG	AGGAAGAGGA	2200
GGGAGGACTC	AGGGGACCTT	GGAATCCAGA	TCAGTGTGGA	CCTCGGCCCT	2250
GAGAGGTCCA	GGGCACGGTG	GCCACATATG	GCCCATATT	CCTGCATCTT	2300
TGAGGTGACA	GGACAGAGCT	GTGGTCTGAG	AAGTGGGGCC	TCAGGTCAAC	2350
AGAGGGAGGA	GTTCCAGGAT	CCATATGGCC	CAAGATGTGC	CCCCTTCATG	2400
AGGACTGGGG	ATATCCCCGG	CTCAGAAAGA	AGGGACTCCA	CACAGTCTGG	2450
CTGCCCCCTT	TTAGTAGCTC	TAGGGGGACC	AGATCAGGGG	TGGCGGTATG	2500
TTCCATTCTC	ACTTGTACCA	CAGGCAGGAA	GTTGGGGGGC	CCTCAGGGAG	2550
ATGGGGTCTT	GGGGTAAAGG	GGGGATGTCT	ACTCATGTCA	GGGAATTGGG	2600
GGTTGAGGAA	GCACAGGGCG	TGGCAGGAAT	AAAGATGAGT	GAGACAGACA	2650
AGGCTATTGG	AATCCACACC	CCAGAACCAA	AGGGGTCAAG	CCTGGACACC	2700
TCACCCAGGA	TGTGGCTTCT	TTTCACTCC	TGTTTCCAGA	TCTGGGGCAG	2750
GTGAGGACCT	CATTCTCAGA	GGGTGACTCA	GGTCAACGTA	GGGACCCCCA	2800
TCTGGTCTAA	AGACAGAGCG	GTCCCAGGAT	CTGCCATGCG	TTCGGGTGAG	2850
GAACATGAGG	GAGGACTGAG	GGTACCCCGAG	GACCAGAAC	CTGAGGGAGA	2900
CTGCACAGAA	ATCAGCCCTG	CCCCTGCTGT	CACCCAGAG	AGCATGGGCT	2950
GGGCCGTCTG	CCGAGGTCTT	TCCGTTATCC	TGGGATCAT	GATGTCAGGG	3000
ACGGGGAGGC	CTTGGTCTGA	GAAGGCTGCG	CTCAGGTCAAG	TAGAGGGAGC	3050
GTCCCAGGCC	CTGCCAGGAG	TCAAGGTGAG	GACCAAGCGG	GCACCTCACC	3100
CAGGACACAT	TAATTCCAAT	GAATTTGAT	ATCTCTTGCT	GCCCTTCCCC	3150
AAGGACCTAG	GCACGTGTGG	CCAGATGTTT	GTCCCCTCCT	GTCCTTCAT	3200
TCCTTATCAT	GGATGTGAAC	TCTTGATTG	GATTTCAG	ACCAGCAAAA	3250
GGGCAGGATC	CAGGCCCTGC	CAGGAAAAAT	ATAAGGGCCC	TGCGTGAGAA	3300
CAGAGGGGGT	CATCCACTGC	ATGAGAGTGG	GGATGTCAAC	GAGTCCAGGCC	3350
CACCCCTCCTG	GTAGCACTGA	GAAGCCAGGG	CTGTGCTTGC	GGTCTGCACC	3400

CTGAGGGCCC	GTGGATT CCT	CTTCCTGGAG	CTCCAGGAAC	CAGGCAGTGA	3450
GGCCTTGGTC	TGAGACAGTA	TCCTCAGGTC	ACAGAGCAGA	GGATGCACAG	3500
GGTGTGCCAG	CAGTGAATGT	TTGCCCTGAA	TGCACACCAA	GGGCCCCACC	3550
TGCCACAGGA	CACATAGGAC	TCCACAGAGT	CTGGCCTCAC	CTCCCTACTG	3600
TCAGTCCTGT	AGAATCGACC	TCTGCTGGCC	GGCTGTACCC	TGAGTACCCCT	3650
CTCACTTCCT	CCTTCAGGTT	TTCAGGGAC	AGGCCAACCC	AGAGGACAGG	3700
ATTCCCTGGA	GGCCACAGAG	GAGCACCAAG	GAGAAGATCT	GTAAGTAGGC	3750
CTTTGTTAGA	GTCTCCAAGG	TTCAGTTCTC	AGCTGAGGCC	TCTCACACAC	3800
TCCCTCTCTC	CCCAGGCCCTG	TGGGTCTTCA	TTGCCAGCT	CCTGCCACACA	3850
CTCCTGCCTG	CTGCCCTGAC	GAGAGTCATC			3880
ATG TCT CTT GAG CAG AGG AGT CTG CAC TGC AAG CCT GAG GAA					3922
GCC CTT GAG GCC CAA CAA GAG GCC CTG GGC CTG GTG TGT GTG					3964
CAG GCT GCC ACC TCC TCC TCC CCT CTG GTC CTG GGC ACC					4006
CTG GAG GAG GTG CCC ACT GCT GGG TCA ACA GAT CCT CCC CAG					4048
AGT CCT CAG GGA GCC TCC GCC TTT CCC ACT ACC ATC AAC TTC					4090
ACT CGA CAG AGG CAA CCC AGT GAG GGT TCC AGC AGC CGT GAA					4132
GAG GAG GGG CCA AGC ACC TCT TGT ATC CTG GAG TCC TTG TTC					4184
CGA GCA GTA ATC ACT AAG AAG GTG GCT GAT TTG GTT GGT TTT					4216
CTG CTC CTC AAA TAT CGA GCC AGG GAG CCA GTC ACA AAG GCA					4258
GAA ATG CTG GAG AGT GTC ATC AAA AAT TAC AAG CAC TGT TTT					4300
CCT GAG ATC TTC GGC AAA GCC TCT GAG TCC TTG CAG CTG GTC					4342
TTT GGC ATT GAC GTG AAG GAA GCA GAC CCC ACC GGC CAC TCC					4384
TAT GTC CTT GTC ACC TGC CTA GGT CTC TCC TAT GAT GGC CTG					4426
CTG GGT GAT AAT CAG ATC ATG CCC AAG ACA GGC TTC CTG ATA					4468
ATT GTC CTG GTC ATG ATT GCA ATG GAG GGC GGC CAT GCT CCT					4510
GAG GAG GAA ATC TGG GAG GAG CTG AGT GTG ATG GAG GTG TAT					4552
GAT GGG AGG GAG CAC AGT GCC TAT GGG GAG CCC AGG AAG CTG					4594
CTC ACC CAA GAT TTG GTG CAG GAA AAG TAC CTG GAG TAC GGC					4636
AGG TGC CGG ACA GTG ATC CCG CAC GCT ATG AGT TCC TGT GGG					4688
GTC CAA GGG CCC TCG CTG AAA CCA GCT ATG TGA					4711
AAGTCCTTGA GTATGTGATC AAGGTCAGTG CAAGAGTTTC					4750
GCTTTTCTT CCCATCCCTG CGTGAAGCAG CTTTGAGAGA GGAGGAAGAG					4800
GGAGTCCTGAG CATGAGTTGC AGCCAAGGCC AGTGGGAGGG GGACTGGGCC					4850
AGTGCACCTT CCAGGGCCGC GTCCAGCAGC TTCCCCTGCC TCGTGTGACA					4900
TGAGGCCCAT TCTTCACTCT GAAGAGAGCG GTCAAGTGTTC TCAGTAGTAG					4950
GTTTCTGTT TATTGGGTGA CTTGGAGATT TATCTTTGTT CTCTTTGGAA					5000
ATTGTTCAAA TGTTTTTT TAAGGGATGG TTGAATGAAC TTCAGCATCC					5050
AAGTTTATGA ATGACAGCAG TCACACAGTT CTGTGTATAT AGTTAAGGG					5100
TAAGAGTCTT GTGTTTATT CAGATTGGGA AATCCATTCT ATTTTGTGAA					5150
TTGGGATAAT AACAGCAGTG GAATAAGTAC TTAGAAATGT GAAAAATGAG					5200
CAGTAAAATA GATGAGATAA AGAACTAAAG AAATTAAGAG ATAGTCATT					5250
CTTGCCTTAT ACCTCAGTCT ATTCTGTAAA ATTGTTAAAG ATATATGCAT					5300
ACCTGGATT CTTGGCTTC TTTGAGAATG TAAGAGAAAT TAAATCTGAA					5350
TAAAGAATT TTCCTGTTCA CTGGCTCTT TCTCTCCAT GCACTGAGCA					5400
TCTGCTTTT GGAAGGCCCT GGGTTAGTAG TGGAGATGCT AAGGTAAGCC					5450
AGACTCATAC CCACCCATAG GGTCTAGAG TCTAGGAGCT GCAGTCACGT					5500
AATCGAGGTG GCAAGATGTC CTCTAAAGAT GTAGGGAAAA GTGAGAGAGG					5550
GGTGAGGGTG TGGGGCTCCG GGTGAGAGTG GTGGAGTGT AATGCCCTGA					5600
GCTGGGGCAT TTTGGGCTTT GGGAAACTGC AGTCCTTCT GGGGGAGCTG					5650
ATTGTAATGA TCTTGGGTGG ATCC					5674

(2) INFORMATION FOR SEQUENCE ID NO: 9:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4157 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: genomic DNA

(ix) FEATURE:

- (A) NAME/KEY: MAGE-2 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

CCCATCCAGA	TCCCCATCCG	GGCAGAACCC	GGTTCCACCC	TTGCCGTGAA	50
CCCAGGGAAAG	TCACGGGCC	GGATGTGACG	CCACTGACTT	GCACATTGGA	100
GGTCAGAGGA	CAGCGAGATT	CTCGCCCTGA	GCAACGGCCT	GACGTCGGCG	150
GAGGGAAAGCA	GGCGCAGGCT	CCGTGAGGAG	GCAAGGTAAG	ACGCCGAGGG	200
AGGACTGAGG	CGGGCCTCAC	CCCAGACAGA	GGGCCCCCAA	TTAATCCAGC	250
GCTGCCTCTG	CTGCCGGGCC	TGGACCACCC	TGCAGGGGAA	GACTTCTCAG	300
GCTCAGTCGC	CACCACCTCA	CCCCGCCACC	CCCCGCCGCT	TTAACCGCAG	350
GGAACCTCTGG	CGTAAGAGCT	TTGTGTGACC	AGGGCAGGGC	TGGTTAGAAG	400
TGCTCAGGGC	CCAGACTCAG	CCAGGAATCA	AGGTCAAGGAC	CCCAAGAGGG	450
GAATGAGGGC	AACCCACCCC	CTACCCCTCAC	TACCAATCCC	ATCCCCAAC	500
ACCAACCCCCA	CCCCCATCCC	TCAAACACCA	ACCCACCCC	CAAACCCAT	550
TCCCATCTCC	TCCCCCACCA	CCATCCTGGC	AGAATCCGGC	TTTGCCCCCTG	600
CAATCAACCC	ACGGAAGCTC	CGGGAATGGC	GGCCAAGCAC	GCGGATCCTG	650
ACGTTCACAT	GTACGGCTAA	GGGAGGGAAAG	GGGTTGGGTC	TCGTGAGTAT	700
GGCCTTTGGG	ATGCAGAGGA	AGGGCCCAGG	CCTCCTGGAA	GACAGTGGAG	750
TCCTTAGGGG	ACCCAGCATG	CCAGGACAGG	GGGCCCAGT	TACCCCTGTC	800
TCAAACGTAG	CCACCTTTTC	ATTCAGCCGA	GGGAATCCTA	GGGATGCAGA	850
CCCACTTCAG	GGGGTTGGGG	CCCAGCCTGC	GAGGAGTCAA	GGGGAGGAAG	900
AAGAGGGAGG	ACTGAGGGGA	CCTTGGAGTC	CAGATCAGTG	GCAACCTTGG	950
GCTGGGGGAT	CCTGGGCACA	GTGGCCGAAT	GTGCCCGTG	CTCATTGCAC	1000
CTTCAGGGTG	ACAGAGAGTT	GAGGGCTGTG	GTCTGAGGGC	TGGGACTTCA	1050
GGTCAGCAGA	GGGAGGAATC	CCAGGATCTG	CCGGACCCAA	GGTGTGCC	1100
CTTCATGAGG	ACTCCCCATA	CCCCCGGCC	AGAAAGAAGG	GATGCCACAG	1150
AGTCTGGAAAG	TAAATTGTT	TTAGCTCTGG	GGGAACCTGA	TCAGGGATGG	1200
CCCTAAGTGA	CAATCTCATT	TGTACCACAG	GCAGGAGGTT	GGGAAACCCT	1250
CAGGGAGATA	AGGTGTTGGT	GTAAAGAGGA	GCTGTCTGCT	CATTTCAGGG	1300
GGTTCCCCCT	TGAGAAAGGG	CAGTCCCTGG	CAGGAGTAAA	GATGAGTAAC	1350
CCACAGGGAGG	CCATCATAAAC	GTTCACCCCTA	GAACCAAAGG	GGTCAGCCCT	1400
GGACAACGCA	CGTGGGGTAA	CAGGATGTGG	CCCCTCCTCA	CTTGTCTTTC	1450
CAGATCTCAG	GGAGTTGATG	ACCTTGTGTT	CAGAAGGTGA	CTCAGTCAAC	1500
ACAGGGGCC	CTCTGGTCGA	CAGATGCAGT	GGTCTAGGA	TCTGCCAAGC	1550
ATCCAGGTGG	AGAGCCTGAG	GTAGGATTGA	GGGTACCCCT	GGGCCAGAAT	1600
GCAGCAAGGG	GGCCCCATAG	AAATCTGCC	TGCCCCTGCG	GTTACTTCAG	1650
AGACCCTGGG	CAGGGCTGTC	AGCTGAAGTC	CCTCCATTAT	CTGGGATCTT	1700
TGATGTCAGG	GAAGGGGAGG	CCTTGGTCTG	AAGGGGCTGG	AGTCAGGTCA	1750
GTAGAGGGAG	GGTCTCAGGC	CCTGCCAGGA	GTGGACGTGA	GGACCAAGCG	1800
GACTCGTCAC	CCAGGACACC	TGGAATCCAA	TGAATTGAC	ATCTCTCGTT	1850
GTCCTTCGCG	GAGGACCTGG	TCACGTATGG	CCAGATGTGG	GTCCCTCTA	1900
TCTCCTTCTG	TACCATATCA	GGGATGTGAG	TTCTTGACAT	GAGAGATTCT	1950

CAAGCCAGCA	AAAGGGTGGG	ATTAGGCCCT	ACAAGGAGAA	AGGTGAGGGC	2000
CCTGAGTGAG	CACAGAGGGG	ACCCTCCACC	CAAGTAGAGT	GGGGACCTCA	2050
CGGAGTCTGG	CCAACCCTGC	TGAGACTTCT	GGGAATCCGT	GGCTGTGCTT	2100
GCAGTCTGCA	CACTGAAGGC	CCGTGCATTC	CTCTCCCAGG	AATCAGGAGC	2150
TCCAGGAACC	AGGCAGTGAG	GCCTTGGTCT	GAGTCAGTGC	CTCAGGTAC	2200
AGAGCAGAGG	GGACGCAGAC	AGTGCCAACA	CTGAAGGTTT	GCCTGGAATG	2250
CACACCAAGG	GCCCCACCCG	CCCAGAACAA	ATGGGACTCC	AGAGGGCCTG	2300
GCCTCACCCCT	CCCTATTCTC	AGTCCTGCAG	CCTGAGCATG	TGCTGGCCGG	2350
CTGTACCCCTG	AGGTGCCCTC	CCACTTCCTC	CTTCAGGTTT	TGAGGGGGAC	2400
AGGCTGACAA	GTAGGACCCG	AGGCACTGGA	GGAGCATTGA	AGGAGAAGAT	2450
CTGTAAGTAA	GCCTTGTCA	GAGCCTCCAA	GGTTCAGTTC	AGTTCTCACC	2500
TAAGGCCTCA	CACACGCTCC	TTCTCTCCCC	AGGCCTGTGG	GTCTTCATTG	2550
CCCAGCTCCT	GCCCCGCACTC	CTGCCTGCTG	CCCTGACCAAG	AGTCATC	2597
ATG CCT CTT GAG CAG AGG AGT CAG CAC TGC AAG CCT GAA GAA					2639
GGC CTT GAG GCC CGA GGA GAG GCC CTG GGC CTG GTG GGT GCG					2681
CAG GCT CCT GCT ACT GAG GAG CAG CAG ACC GCT TCT TCC TCT					2723
TCT ACT CTA GTG GAA GTT ACC CTG GGG GAG GTG CCT GCT GCC					2765
GAC TCA CCG AGT CCT CCC CAC AGT CCT CAG GGA GCC TCC AGC					2807
TTC TCG ACT ACC ATC AAC TAC ACT CTT TGG AGA CAA TCC GAT					2849
GAG GGC TCC AGC AAC CAA GAA GAG GAG GGG CCA AGA ATG TTT					2891
CCC GAC CTG GAG TCC GAG TTC CAA GCA GCA ATC AGT AGG AAG					2933
ATG GTT GAG TTG GTT CAT TTT CTG CTC CTC AAG TAT CGA GCC					2975
AGG GAG CCG GTC ACA AAG GCA GAA ATG CTG GAG AGT GTC CTC					3017
AGA AAT TGC CAG GAC TTC TTT CCC GTG ATC TTC AGC AAA GCC					3059
TCC GAG TAC TTG CAG CTG GTC TTT GGC ATC GAG GTG GTG GAA					3101
GTG GTC CCC ATC AGC CAC TTG TAC ATC CTT GTC ACC TGC CTG					3143
GGC CTC TCC TAC GAT GGC CTG CTG GGC GAC AAT CAG GTC ATG					3185
CCC AAG ACA GGC CTC CTG ATA ATC GTC CTG GCC ATA ATC GCA					3227
ATA GAG GGC GAC TGT GCC CCT GAG GAG AAA ATC TGG GAG GAG					3269
CTG AGT ATG TTG GAG GTG TTT GAG GGG AGG GAG GAC AGT GTC					3311
TTC GCA CAT CCC AGG AAG CTG CTC ATG CAA GAT CTG GTG CAG					3353
GAA AAC TAC CTG GAG TAC CGG CAG GTG CCC GGC AGT GAT CCT					3395
GCA TGC TAC GAG TTC CTG TGG GGT CCA AGG GCC CTC ATT GAA					3437
ACC AGC TAT GTG AAA GTC CTG CAC CAT ACA CTA AAG ATC GGT					3479
GGA GAA CCT CAC ATT TCC TAC CCA CCC CTG CAT GAA CGG GCT					3521
TTG AGA GAG GGA GAA GAG TGA					3542
GTCTCAGCAC ATGTTGCAGC CAGGGCCAGT GGGAGGGGT CTGGGCCAGT					3592
GCACCTTCCA GGGCCCCATC CATTAGCTTC CACTGCCTCG TGTGATATGA					3642
GGCCCATTC TGCCTCTTG AAGAGAGCAG TCAGCATTCT TAGCAGTGAG					3692
TTTCTGTTCT GTTGGATGAC TTTGAGATTT ATCTTTCTTT CCTGTTGGAA					3742
TTGTTCAAAT GTTCCTTTA ACAAAATGGTT GGATGAACCT CAGCATCCAA					3792
GTTTATGAAT GACAGTAGTC ACACATAGTG CTGTTTATAT AGTTTAGGGG					3842
TAAGAGTCCT GTTTTTATT CAGATTGGGA AATCCATTCC ATTTTGTGAG					3892
TTGTCACATA ATAACAGCAG TGGAAATATGT ATTTGCCTAT ATTGTGAACG					3942
AATTAGCAGT AAAATACATG ATACAAGGAA CTCAAAAGAT AGTTAATTCT					3992
TGCCTTATAC CTCAGTCTAT TATGTAAAAT TAAAAATATG TGTATGTTT					4042
TGCTTCTTTG AGAATGCAAAG AAAATTTAA TCTGAATAAA TTCTTCCTGT					4092
TCACTGGCTC ATTTCTTTAC CATTCACTCA GCATCTGCTC TGTGGAAGGC					4142
CCTGGTAGTA GTGGG					4157

(2) INFORMATION FOR SEQUENCE ID NO: 10:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 662 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: genomic DNA
- (ix) FEATURE:
 - (A) NAME/KEY: MAGE-21 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

GGATCCCCAT	GGATCCAGGA	AGAATCCAGT	TCCACCCCTG	CTGTGAACCC	50
AGGGAAAGTCA	CGGGGCCCGGA	TGTGACGCCA	CTGACTTGCG	CGTTGGAGGT	100
CAGAGAACAG	CGAGATTCTC	GCCCTGAGCA	ACGGCCTGAC	GTCGGCGGAG	150
GGAAGCAGGC	GCAGGCTCCG	TGAGGAGGCA	AGGTAAGATG	CCGAGGGAGG	200
ACTGAGGCAGG	GCCTCACCCC	AGACAGAGGG	CCCCCAATAA	TCCAGCGCTG	250
CCTCTGCTGC	CAGGCCTGGA	CCACCCCTGCA	GGGGAAGACT	TCTCAGGCTC	300
AGTCGCCACC	ACCTCACCCC	GCCACCCCCC	GCCGCTTTAA	CCGCAGGGAA	350
CTCTGGTGT	AGAGCTTGT	GTGACCAGGG	CAGGGCTGGT	TAGAAGTGCT	400
CAGGGCCAG	ACTCAGCCAG	GAATCAAGGT	CAGGACCCCA	AGAGGGACT	450
GAGGGTAACC	CCCCCGCACC	CCCACCCACCA	TTCCCATCCC	CCAACACCAA	500
CCCCACCCCC	ATCCCCAAC	ACCAAACCCA	CCACCATCGC	TCAAACATCA	550
ACGGCACCCC	CAAACCCGA	TTCCCATCCC	CACCCATCCT	GGCAGAATCG	600
GAGCTTGCC	CCTGCAATCA	ACCCACGGAA	GCTCCGGGAA	TGGCGGCCAA	650
GCACGCGGAT	CC				662

(2) INFORMATION FOR SEQUENCE ID NO: 11:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 1640 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA to mRNA
- (ix) FEATURE:
 - (A) NAME/KEY: cDNA MAGE-3
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

GCCGCGAGGG	AAGCCGGCCC	AGGCTCGGTG	AGGAGGCAAG	GTTCTGAGGG	50
GACAGGGTGA	CCTGGAGGAC	CAGAGGCC	CGGAGGAGCA	CTGAAGGAGA	100
AGATCTGCCA	GTGGGTCTCC	ATTGCCAGC	TCCTGCCAC	ACTCCCGCCT	150
GTTGCCCTGA	CCAGAGTCAT	C			171
ATG CCT CTT	GAG CAG AGG	AGT CAG	CAC TGC AAG	CCT GAA GAA	213
GGC CTT GAG	GCC CGA GGA	GAG GCC	CTG GGC	CTG GTG GGT	255
CAG GCT CCT	GCT ACT GAG	GAG CAG	GAG GCT	GCC TCC TCC	297
TCT ACT CTA	GTT GAA GTC	ACC CTG	GGG GAG	GTG CCT GCT	339
GAG TCA CCA	GAT CCT CCC	CAG AGT	CCT CAG	GGA GCC TCC AGC	381
CTC CCC ACT	ACC ATG AAC	TAC CCT	CTC TGG	AGC CAA TCC TAT	423

GAG	GAC	TCC	AGC	AAC	CAA	GAA	GAG	GAG	GGG	CCA	AGC	ACC	TTC	465
CCT	GAC	CTG	GAG	TCC	GAG	TTC	CAA	GCA	GCA	CTC	AGT	AGG	AAG	507
GTG	GCC	GAG	TTG	GTT	CAT	TTT	CTG	CTC	CTC	AAG	TAT	CGA	GCC	549
AGG	GAG	CCG	GTC	ACA	AAG	GCA	GAA	ATG	CTG	GGG	AGT	GTC	GTC	591
GGA	AAT	TGG	CAG	TAT	TTC	TTT	CCT	GTG	ATC	TTC	AGC	AAA	GCT	633
TCC	AGT	TCC	TTG	CAG	CTG	GTC	TTT	GGC	ATC	GAG	CTG	ATG	GAA	675
GTG	GAC	CCC	ATC	GGC	CAC	TTG	TAC	ATC	TTT	GCC	ACC	TGC	CTG	717
GGC	CTC	TCC	TAC	GAT	GGC	CTG	CTG	GGT	GAC	AAT	CAG	ATC	ATG	759
CCC	AAG	GCA	GGC	CTC	CTG	ATA	ATC	GTC	CTG	GCC	ATA	ATC	GCA	801
AGA	GAG	GGC	GAC	TGT	GCC	CCT	GAG	GAG	AAA	ATC	TGG	GAG	GAG	843
CTG	AGT	GTG	TTA	GAG	GTG	TTT	GAG	GGG	AGG	GAA	GAC	AGT	ATG	885
TTG	GGG	GAT	CCC	AAG	AAG	CTG	CTC	ACC	CAA	CAT	TTC	GTG	CAG	927
GAA	AAC	TAC	CTG	GAG	TAC	CGG	CAG	GTC	CCC	GGC	AGT	GAT	CCT	969
GCA	TGT	TAT	GAA	TTC	CTG	TGG	GGT	CCA	AGG	GCC	CTC	GTT	GAA	1011
ACC	AGC	TAT	GTG	AAA	GTC	CTG	CAC	CAT	ATG	GTA	AAG	ATC	AGT	1053
GGA	GGA	CCT	CAC	ATT	TCC	TAC	CCA	CCC	CTG	CAT	GAG	TGG	GTT	1095
TTG	AGA	GAG	GGG	GAA	GAG	TGA								1116
GTCTGAGCAC	GAGTTGCAGC	CAGGGCCAGT	GGGAGGGGGT	CTGGGCCAGT										1166
GCACCTTCCG	GGGCCGCGATC	CCTTAGTTTC	CACTGCCTCC	TGTGACGTGA										1216
GGCCCATTCT	TCACTCTTG	AAGCGAGCAG	TCAGCATTCT	TAGTAGTGGG										1266
TTTCTGTTCT	GTTGGATGAC	TTTGAGATTA	TTCTTGTTT	CCTGTTGGAG										1316
TTGTTCAAAT	GTTCCCTTTA	ACGGATGGTT	GAATGAGCGT	CAGCATCCAG										1366
GTTTATGAAT	GACAGTAGTC	ACACATAGTG	CTGTTATAT	AGTTTAGGAG										1416
TAAGAGTCTT	GttTTTTACT	CAAATTgGGA	AATCCATTCC	ATTTTGTGAA										1466
TTGTGACATA	ATAATAGCAG	TGGTAAAAGT	ATTGCTTAA	AATTGTGAGC										1516
GAATTAGCAA	TAACATACAT	GAGATAACTC	AAGAAATCAA	AAGATAGTTG										1566
ATTCTTGCCT	TGTACCTCAA	TCTATTCTGT	AAAATTAAAC	AAATATGCAA										1616
ACCAGGATT	CCTTGACTTC	TTTG												1640

(2) INFORMATION FOR SEQUENCE ID NO: 12:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 943 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: genomic DNA
- (ix) FEATURE:
 - (A) NAME/KEY: MAGE-31 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

GGATCCTCCA	CCCCAGTAGA	GTGGGGACCT	CACAGAGTCT	GGCCAACCT	50
CCTGACAGTT	CTGGGAATCC	GTGGCTGCGT	TTGCTGTCTG	CACATTGGGG	100
GCCCCGTGGAT	TCCTCTCCA	GGAACATCAGGA	GCTCCAGGAA	CAAGGCAGTG	150
AGGACTTGGT	CTGAGGCAGT	GTCCTCAGGT	CACAGAGTAG	AGGGGGgCTCA	200
GATAGTGCCA	ACGGTGAAGG	TTTGCCTTGG	ATTCAAACCA	AGGGCCCCCAC	250
CTGCCCCAGA	ACACATGGAC	TCCAGAGCGC	CTGGCCTCAC	CCTCAATACT	300
TTCAGTCCTG	CAGCCTCAGC	ATGCGCTGGC	CGGATGTACC	CTGAGGTGCC	350
CTCTCACTTC	CTCCTTCAGG	TTCTGAGGGG	ACAGGGCTGAC	CTGGAGGACC	400

AGAGGCCCCC	GGAGGAGCAC	TGAAGGAGAA	GATCTGTAAG	TAAGCCTTG	450
TTAGAGCCTC	CAAGGTTCCA	TTCAGTACTC	AGCTGAGGTC	TCTCACATGC	500
TCCCTCTCTC	CCCAGGCCAG	TGGGTCTCCA	TTGCCAGCT	CCTGCCACCA	550
CTCCCGCCTG	TTGCCCTGAC	CAGAGTCATC			580
ATG CCT CTT GAG CAG AGG AGT CAG CAC TGC AAG CCT GAA GAA					622
GGC CTT GAG GCC CGA GGA GAg GCC CTG GGC CTG GTG GGT GCG					664
CAG GCT CCT GCT ACT GAG GAG CAG GAG GCT GCC TCC TCC TCT					706
TCT AGT GTA GTT GAA GTC ACC CTG GGG GAG GTG CCT GCT GCC					748
GAG TCA CCA GAT CCT CCC CAG AGT CCT CAG GGA GCC TCC AGC					790
CTC CCC ACT ACC ATG AAC TAC CCT CTC TGG AGC CAA TCC TAT					832
GAG GAC TCC AGC AAC CAA GAA GAG GAG GGG CCA AGC ACC TTC					874
CCT GAC CTG GAG TCT GAG TTC CAA GCA GCA CTC AGT AGG AAG					916
GTG GCC AAG TTG GTT CAT TTT CTG CTC					943

(2) INFORMATION FOR SEQUENCE ID NO: 13:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 2531 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: genomic DNA
- (ix) FEATURE:
 - (A) NAME/KEY: MAGE-4 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

GGATCCAGGC	CCTGCCTGGA	GAAATGTGAG	GGCCCTGAGT	GAACACAGTG	50
GGGATCATCC	ACTCCATGAG	AGTGGGGACC	TCACAGAGTC	CAGCCTACCC	100
TCTTGATGGC	ACTGAGGGAC	CGGGGCTGTG	CTTACAGTCT	GCACCCCTAAG	150
GGCCCATGGA	TTCCTCTCCT	AGGAGCTCCA	GGAAACAAGGC	AGTGAGGCCT	200
TGGTCTGAGA	CAGTGTCTC	AGGTTACAGA	GCAGAGGATG	CACAGGCTGT	250
GCCAGCAGTG	AATGTTGCC	CTGAATGCAC	ACCAAGGGCC	CCACCTGCCA	300
CAAGACACAT	AGGACTCCAA	AGAGTCTGGC	CTCACCTCCC	TACCATCAAT	350
CCTGCAGAAT	CGACCTCTGC	TGGCCGGCTA	TACCCCTGAGG	TGCTCTCTCA	400
CTTCCTCCTT	CAGGTTCTGA	GCAGACAGGC	CAACCGGAGA	CAGGATTCCC	450
TGGAGGCCAC	AGAGGAGCAC	CAAGGAGAAAG	ATCTGTAAGT	AAGCCTTTGT	500
TAGAGCCTCT	AAGATTGGT	TCTCAGCTGA	GGTCTCTCAC	ATGCTCCCTC	550
TCTCCGTAGG	CCTGTGGTC	CCCATTGCC	AGCTTTGCC	TGCACTCTTG	600
CCTGCTGCC	TGACCAAGAGT	CATC			624
ATG TCT TCT GAG CAG AAG AGT CAG CAC TGC AAG CCT GAG GAA					666
GGC GTT GAG GCC CAA GAA GAG GGC CTG GGC CTG GTG GGT GCA					708
CAG GCT CCT ACT ACT GAG GAG CAG GAG GCT GCT GTC TCC TCC					750
TCC TCT CCT CTG GTC CCT GGC ACC CTG GAG GAA GTG CCT GCT					792
GCT GAG TCA GCA GGT CCT CCC CAG AGT CCT CAG GGA GCC TCT					834
GCC TTA CCC ACT ACC ATC AGC TTC ACT TGC TGG AGG CAA CCC					876
AAT GAG GGT TCC AGC AGC CAA GAA GAG GAG GGG CCA AGC ACC					918
TCG CCT GAC GCA GAG TCC TTG TTC CGA GAA GCA CTC AGT AAC					960
AAG GTG GAT GAG TTG GCT CAT TTT CTG CTC CGC AAG TAT CGA					1002
GCC AAG GAG CTG GTC ACA AAG GCA GAA ATG CTG GAG AGA GTC					1044

ATC	AAA	AAT	TAC	AAG	CGC	TGC	TTT	CCT	GTG	ATC	TTC	GGC	AAA	1086
GCC	TCC	GAG	TCC	CTG	AAG	ATG	ATC	TTT	GGC	ATT	GAC	GTG	AAG	1128
GAA	GTG	GAC	CCC	GCC	AGC	AAC	ACC	TAC	ACC	CTT	GTC	ACC	TGC	1170
CTG	GGC	CTT	TCC	TAT	GAT	GGC	CTG	CTG	GGT	AAT	AAT	CAG	ATC	1212
TTT	CCC	AAG	ACA	GGC	CTT	CTG	ATA	ATC	GTC	CTG	GGC	ACA	ATT	1254
GCA	ATG	GAG	GGC	GAC	AGC	GCC	TCT	GAG	GAG	GAA	ATC	TGG	GAG	1296
GAG	CTG	GGT	GTG	ATG	GGG	GTG	TAT	GAT	GGG	AGG	GAG	CAC	ACT	1338
GTC	TAT	GGG	GAG	CCC	AGG	AAA	CTG	CTC	ACC	CAA	GAT	TGG	GTG	1380
CAG	GAA	AAC	TAC	CTG	GAG	TAC	CGG	CAG	GTA	CCC	GGC	AGT	AAT	1422
CCT	CGC	CGC	TAT	GAG	TTC	CTG	TGG	GGT	CCA	AGG	GCT	CTG	GCT	1464
GAA	ACC	AGC	TAT	GTG	AAA	GTC	CTG	GAG	CAT	GTG	GTC	AGG	GTC	1506
AAT	GCA	AGA	GTT	CGC	ATT	GCC	TAC	CCA	TCC	CTG	CGT	GAA	GCA	1548
GCT	TTG	TTA	GAG	GAA	GAG	GGA	GTC	TGA						1578
GCATGAGTTG	CAGCCAGGGC	TGTGGGAAAG	GGGCAGGGCT	GGGCCAGTGC										1628
ATCTAACAGC	CCTGTGCAGC	AGCTTCCCTT	GCCTCGTGT	ACATGAGGCC										1678
CATTCTTCAC	TCTGTTGAA	GAAAATAGTC	AGTGTTCCTTA	GTAGTGGGTT										1728
TCTATTTGT	TGGATGACTT	GGAGATTAT	CTCTGTTCC	TTTTACAATT										1778
GTTGAAATGT	TCCTTTAAT	GGATGGTTGA	ATTAACTTCA	GCATCCAAGT										1828
TTATGAATCG	TAGTTAACGT	ATATTGCTGT	TAATATAGTT	TAGGAGTAAG										1878
AGTCTTGT	TTTATTCA	TTGGGAAATC	CGTTCTATT	TGTGAATTG										1928
GGACATAATA	ACAGCAGTGG	AGTAAGTATT	TAGAAGTGTG	AATTCAACGT										1978
GAAATAGGTG	AGATAAATTA	AAAGATACTT	AATTCCCGCC	TTATGCCTCA										2028
GTCTATTCTG	AAAATTAA	AAATATAT	GCATACCTGG	ATTCCTTG										2078
CTTCGTGAAT	GTAAGAGAAA	TTAAATCTGA	ATAAAATAATT	CTTTCTGTTA										2128
ACTGGCTCAT	TTCTTCTCTA	TGCACTGAGC	ATCTGCTCTG	TGGAAGGCC										2178
AGGATTAGTA	GTGGAGATAC	TAGGGTAAGC	CAGACACACA	CCTACCGATA										2228
GGGTATTAAG	AGTCTAGGAG	CGCGGTATA	TAATTAAGGT	GACAAGATGT										2278
CCTCTAAAGAT	GTAGGGAAA	AGTAACGAGT	GTGGGTATGG	GGCTCCAGGT										2328
GAGAGTGGTC	GGGTGTAAAT	TCCCTGTGTG	GGGCCTTTG	GGCTTTGGGA										2378
AACTGCATTT	TCTTCTGAGG	GATCTGATTC	TAATGAAGCT	TGGTGGGTCC										2428
AGGGCCAGAT	TCTCAGAGGG	AGAGGGAAAA	GCCCCAGATTG	GAAAAGTTGC										2478
TCTGAGCAGT	TCCTTTGTGA	CAATGGATGA	ACAGAGAGGA	GCCTCTACCT										2528
GGG														2531

(2) INFORMATION FOR SEQUENCE ID NO: 14:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 2531 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS:single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: genomic DNA
- (ix) FEATURE:
 - (A) NAME/KEY: MAGE-41 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

GGATCCAGGC	CCTGCCTGGA	GAAATGTGAG	GGCCCTGAGT	GAACACAGTG	50
GGGATCATCC	ACTCCATGAG	AGTGGGGACC	TCACAGAGTC	CAGCCTACCC	100
TCTTGATGGC	ACTGAGGGAC	CGGGGCTGTG	CTTACAGTCT	GCACCCCTAAAG	150

GGCCCATGGA	TTCCTCTCCT	AGGAGCTCCA	GGAAACAAGGC	AGTGAGGCCT	200
TGGTCTGAGA	CAGTGTCTC	AGTTACAGA	GCAGAGGATG	CACAGGCTGT	250
GCCAGCAGTG	AATGTTGCC	CTGAATGCAC	ACCAAGGGCC	CCACCTGCCA	300
CAAGACACAT	AGGACTCCAA	AGAGTCTGGC	CTCACCTCCC	TACCATCAAT	350
CCTGCAGAAT	CGACCTCTGC	TGGCCGGCTA	TACCCCTGAGG	TGCTCTCTCA	400
CTTCCTCCTT	CAGGTTCTGA	GCAGACAGGC	CAACCGGAGA	CAGGATTCCC	450
TGGAGGCCAC	AGAGGAGCAC	CAAGGAGAAG	ATCTGTAAGT	AAGCCTTTGT	500
TAGAGCCTCT	AAGATTTGGT	TCTCAGCTGA	GGTCTCTCAC	ATGCTCCCTC	550
TCTCCGTAGG	CCTGTGGTC	CCCATTGCC	AGCTTTGCC	TGCACTCTTG	600
CCTGCTGCC	TGAGCAGAGT	CATC			624
ATG TCT TCT GAG CAG AAG AGT CAG CAC TGC AAG CCT GAG GAA					666
GGC GTT GAG GCC CAA GAA GAG GCC CTG GGC CTG GTG GGT GCG					708
CAG GCT CCT ACT ACT GAG GAG CAG GAG GCT GCT GTC TCC TCC					750
TCC TCT CCT CTG GTC CCT GGC ACC CTG GAG GAA GTG CCT GCT					792
GCT GAG TCA GCA GGT CCT CCC CAG AGT CCT CAG GGA GCC TCT					834
GCC TTA CCC ACT ACC ATC AGC TTC ACT TGC TGG AGG CAA CCC					876
AAT GAG GGT TCC AGC AGC CAA GAA GAG GAG GGG CCA AGC ACC					918
TCG CCT GAC GCA GAG TCC TTG TTC CGA GAA GCA CTC AGT AAC					960
AAG GTG GAT GAG TTG GCT CAT TTT CTG CTC CGC AAG TAT CGA					1002
GCC AAG GAG CTG GTC ACA AAG GCA GAA ATG CTG GAG AGA GTC					1044
ATC AAA AAT TAC AAG CGC TGC TTT CCT GTG ATC TTC GGC AAA					1086
GCC TCC GAG TCC CTG AAG ATG ATC TTT GGC ATT GAC GTG AAG					1128
GAA GTG GAC CCC ACC AGC AAC ACC TAC ACC CTT GTC ACC TGC					1170
CTG GGC CTT TCC TAT GAT GGC CTG CTG GGT AAT AAT CAG ATC					1212
TTT CCC AAG ACA GGC CTT CTG ATA ATC GTC CTG GGC ACA ATT					1254
GCA ATG GAG GGC GAC AGC GCC TCT GAG GAG GAA ATC TGG GAG					1296
GAG CTG GGT GTG ATG GGG GTG TAT GAT GGG AGG GAG CAC ACT					1338
GTC TAT GGG GAG CCC AGG AAA CTG CTC ACC CAA GAT TGG GTG					1380
CAG GAA AAC TAC CTG GAG TAC CGG CAG GTA CCC GGC AGT AAT					1422
CCT GCG CGC TAT GAG TTC CTG TGG GGT CCA AGG GCT CTG GCT					1464
GAA ACC AGC TAT GTG AAA GTC CTG GAG CAT GTG GTC AGG GTC					1506
AAT GCA AGA GTT CGC ATT GCC TAC CCA TCC CTG CGT GAA GCA					1548
GCT TTG TTA GAG GAG GAA GAG GGA GTC TGA					1578
GCATGAGTTG CAGCCAGGGC TGTGGGAAG GGGCAGGGCT GGGCCAGTGC					1628
ATCTAACAGC CCTGTGCAGC AGCTTCCCTT GCCTCGTGT					1678
CATTCTTCAC TCTGTTGAA GAAAATAGTC AGTGTCTTA GTAGTGGGTT					1728
TCTATTTGT TGGATGACTT GGAGATTAT CTCTGTTCC TTTTACAATT					1778
GTTGAAATGT TCCTTTAAT GGATGGTTGA ATTAACCTCA GCATCCAAGT					1828
TTATGAATCG TAGTTAACGT ATATTGCTGT TAATATAGTT TAGGAGTAAG					1878
AGTCTTGT	TTTATTCA	TTGGGAAATC	CGTTCTATT	TGTGAATTG	1928
GGACATAATA ACAGCAGTGG AGTAAGTATT TAGAAGTGTG AATTCAACGT					1978
GAAATAGGTG AGATAAATTA AAAGATACTT AATTCCCGCC TTATGCCTCA					2028
GTCTATTCTG TAAAATTAA AAATATATAT GCATACCTGG ATTTCCTTGG					2078
CTTCGTGAAT GTAAGAGAAA TAAATCTGA ATAAATAATT CTTTCTGT					2128
ACTGGCTCAT TTCTTCTCTA TGCAGTGAGC ATCTGCTCTG TGGAAGGCC					2178
AGGATTAGTA GTGGAGATAC TAGGGTAAGC CAGACACACA CCTACCGATA					2228
GGGTATTAAG AGTCTAGGAG CGCGGTATA TAATTAAGGT GACAAGATGT					2278
CCTCTAACAT GTAGGGAAA AGTAACGAGT GTGGGTATGG GGCTCCAGGT					2328
GAGAGTGGTC GGGTGTAAAT TCCCTGTGTG GGGCCTTTG GGCTTGGGA					2378
AACTCCATT TCTCTGAGG GATCTGATT	TAATGAAGCT	TGGTGGGTCC			2428
AGGGCCAGAT TCTCAGAGGG AGAGGGAAAA GCCCAGATTG GAAAAGTTGC					2478
TCTGAGCGGT TCCTTTGTGA CAATGGATGA ACAGAGAGGA GCCTCTACCT					2528

GGG

2531

576670.1

(2) INFORMATION FOR SEQUENCE ID NO: 15:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1068 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA to mRNA

(ix) FEATURE:

- (A) NAME/KEY: cDNA MAGE-4

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

G GGG CCA AGC ACC TCG CCT GAC GCA GAG TCC TTG TTC CGA	40
GAA GCA CTC AGT AAC AAG GTG GAT GAG TTG GCT CAT TTT CTG	82
CTC CGC AAG TAT CGA GCC AAG GAG CTG GTC ACA AAG GCA GAA	124
ATG CTG GAG AGA GTC ATC AAA AAT TAC AAG CGC TGC TTT CCT	166
GTG ATC TTC GGC AAA GCC TCC GAG TCC CTG AAG ATG ATC TTT	208
GGC ATT GAC GTG AAG GAA GTG GAC CCC GCC AGC AAC ACC TAC	250
ACC CTT GTC ACC TGC CTG GGC CTT TCC TAT GAT GGC CTG CTG	292
GGT AAT AAT CAG ATC TTT CCC AAG ACA GGC CTT CTG ATA ATC	334
GTC CTG GGC ACA ATT GCA ATG GAG GGC GAC AGC GCC TCT GAG	376
GAG GAA ATC TGG GAG GAG CTG GGT GTG ATG GGG GTG TAT GAT	418
GGG AGG GAG CAC ACT GTC TAT GGG GAG CCC AGG AAA CTG CTC	460
ACC CAA GAT TGG GTG CAG GAA AAC TAC CTG GAG TAC CGG CAG	502
GTA CCC GGC AGT AAT CCT GCG CGC TAT GAG TTC CTG TGG GGT	544
CCA AGG GCT CTG GCT GAA ACC AGC TAT GTG AAA GTC CTG GAG	586
CAT GTG GTC AGG GTC AAT GCA AGA GTT CGC ATT GCC TAC CCA	628
TCC CTG CGT GAA GCA GCT TTG TTA GAG GAG GAA GAG GGA GTC	670
TGAGCATGAG TTGCAGCCAG GGCTGTGGGG AAGGGGCAGG GCTGGGCCAG	720
TGCATCTAAC AGCCCCTGTGC AGCAGCTTCC CTTGCCTCGT GTAACATGAG	770
GCCCCATTCTT CACTCTGTT GAAGAAAATA GTCAGTGTTC TTAGTAGTGG	820
GTTTCTATTT TGTTGGATGA CTTGGAGATT TATCTCTGTT TCCTTTACA	870
ATTGTTGAAA TGTTCTTTT AATGGATGGT TGAATTAAC TCAAGCATCCA	920
AGTTTATGAA TCGTAGTTAA CGTATATTGC TGTAAATATA GTTTAGGAGT	970
AAGAGTCTTG TTTTTTATTG AGATTGGAA ATCCGTTCTA TTTTGTGAAT	1020
TTGGGACATA ATAACAGCAG TGGAGTAAGT ATTTAGAAGT GTGAATTG	1068

(2) INFORMATION FOR SEQUENCE ID NO: 16:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2226 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: genomic DNA

(ix) FEATURE:

- (A) NAME/KEY: MAGE-5 gene

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

GGATCCAGGC	CTTGCCAGGA	GAAAGGTGAG	GGCCCTGTGT	GAGCACAGAG	50
GGGACCATTC	ACCCCCAAGAG	GGTGGAGACC	TCACAGATT	CAGCCTACCC	100
TCCTGTTAGC	ACTGGGGGCC	TGAGGCTGTG	CTTGCAGTCT	GCACCCTGAG	150
GGCCCATGCA	TTCCTCTTCC	AGGAGCTCCA	GGAAACAGAC	ACTGAGGCCT	200
TGGTCTGAGG	CCGTGCCCTC	AGGTACACAGA	GCAGAGGAGA	TGCAGACGTC	250
TAGTGCCAGC	AGTGAACGTT	TGCTTGAAT	GCACACTAAT	GGCCCCCATC	300
GCCCCAGAAC	ATATGGGACT	CCAGAGCACC	TGGCCTCACC	CTCTCTACTG	350
TCAGTCTGCA	AGAATCAGCC	TCTGCTTGCT	TGTGTACCCCT	GAGGTGCCCT	400
CTCACTTTT	CCTTCAGGTT	CTCAGGGGAC	AGGCTGACCA	GGATCACCAAG	450
GAAGCTCCAG	AGGATCCCCA	GGAGGCCCTA	GAGGAGCACC	AAAGGAGAAG	500
ATCTGTAAGT	AAGCCTTGT	TAGAGCCTCC	AAGGTCAGT	TTTAGCTGA	550
GGCTTCTCAC	ATGCTCCCTC	TCTCTCCAGG	CCAGTGGGTC	TCCATTGCC	600
AGCTCCTGCC	CACACTCCTG	CCTGTTGCCG	TGACCAAGAGT	CGTC	644
ATG TCT CTT GAG CAG AAG AGT CAG CAC TGC AAG CCT GAG GAA					686
CTC CTC TGG TCC CAG GCA CCC TGG GGG AGG TGC CTG CTG CTG					728
GGT CAC CAG GTC CTC TCA AGA GTC CTC AGG GAG CCT CCG CCA					770
TCC CCA CTG CCA TCG ATT TCA CTC TAT GGA GGC AAT CCA TTA					812
AGG GCT CCA GCA ACC AAG AAG AGG AGG GGC CAA GCA CCT CCC					854
CTG ACC CAG AGT CTG TGT TCC GAG CAG CAC TCA GTA AGA AGG					896
TGG CTG ACT TGA					908
TTCATTTCT GCTCCTCAAG	TATTAAGTCA	AGGAGCTGGT	CACAAAGGCA		958
GAAATGCTGG	AGAGCGTCAT	CAAAAATTAC	AAGCGCTGCT	TTCCTGAGAT	1008
CTTCGGCAA	GCCTCCGAGT	CCTTGCAGCT	GGTCTTGCG	ATTGACGTGA	1058
AGGAAGCGGA	CCCCACCAGC	AAACACCTACA	CCCTTGTAC	CTGCCTGGGA	1108
CTCCTATGAT	GGCCTGCTGG	TTGATAATAA	TCAGATCATG	CCCAAGACGG	1158
GCCTCCTGAT	AATCGTCTTG	GGCATGATTG	CAATGGAGGG	CAAATGCGTC	1208
CCTGAGGAGA	AAATCTGGGA	GGAGCTGAGT	GTGATGAAGG	TGTATGTTGG	1258
GAGGGAGCAC	AGTGTCTGTG	GGGAGCCAG	GAAGCTGCTC	ACCCAAGATT	1308
TGGTGCAGGA	AAACTACCTG	GAGTACCGGC	AGGTGCCAG	CAGTGATCCC	1358
ATATGCTATG	AGTTACTGTG	GGGTCCAAGG	GCACTCGCTG	CTTGAAAGTA	1408
CTGGAGCACG	TGGTCAGGGT	CAATGCAAGA	GTTCTCATT	CCTACCCATC	1458
CCTGCGTGAA	GCAGCTTGA	GAGAGGAGGA	AGAGGGAGTC	TGAGCATGAG	1508
CTGCAGGCCAG	GGCCACTGCG	AGGGGGGCTG	GGCCAGTGCA	CCTTCCAGGG	1558
CTCCGTCCAG	TAGTTTCCCC	TGCCCTTAATG	TGACATGAGG	CCCATTCTTC	1608
TCTCTTGAA	GAGAGCAGTC	AAACATTCTA	GTAGTGGGTT	TCTGTTCTAT	1658
TGGATGACTT	TGAGATTGT	CTTGTTTCC	TTTGGAAATT	GTTCAAATGT	1708
TTCCTTTAAT	GGGTGGTTGA	ATGAACCTCA	GCATTCAAAT	TTATGAATGA	1758
CAGTAGTCAC	ACATAGTGT	GTTTATATAG	TTTAGGAGTA	AGAGTCTTGT	1808
TTTTTATTCA	GATTGGAAA	TCCATTCCAT	TTTGTGAATT	GGGACATAGT	1858
TACAGCAGTG	GAATAAGTAT	TCATTTAGAA	ATGTGAATGA	GCAGTAAAC	1908
TGATGACATA	AAGAAATTAA	AAGATATT	ATTCTTGCTT	ATACTCAGTC	1958
TATTGGTAA	AATTTTTTT	AAAAAATGTG	CATACCTGGA	TTTCCTTGGC	2008
TTCTTGAGA	ATGTAAGACA	AATTAAATCT	GAATAAATCA	TTCTCCCTGT	2058
TCACTGGCTC	ATTTATTCTC	TATGCACTGA	GCATTGCTC	TGTGGAAGGC	2108
CCTGGGTTAA	TAGTGGAGAT	GCTAAGGTAA	GCCAGACTCA	CCCCTACCCA	2158
CAGGGTAGTA	AAGTCTAGGA	GCAGCAGTCA	TATAATTAAG	GTGGAGAGAT	2208
GCCCTCTAAG	ATGTAGAG				2226

(2) INFORMATION FOR SEQUENCE ID NO: 17:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 2305 base pairs
 - (B) TYPE; nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: genomic DNA
- (ix) FEATURE:
 - (A) NAME/KEY: MAGE-51 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

GGATCCAGGC	CTTGCCAGGA	GAAAGGTGAG	GGCCCTGTGT	GAGCACAGAG	50
GGGACCATT	ACCCCCAAGAG	GGTGGAGACC	TCACAGATT	CAGCCTACCC	100
TCCTGTTAGC	ACTGGGGGCC	TGAGGCTGTG	CTTGCAGTCT	GCACCCCTGAG	150
GGCCCATGCA	TTCCTCTTCC	AGGAGCTCCA	GGAAAACAGAC	ACTGAGGCCT	200
TGGTCTGAGG	CCGTGCCCTC	AGGTCACAGA	GCAGAGGAGA	TGCAGACGTC	250
TAGTGCCAGC	AGTGAACGTT	TGCCCTGAAT	GCACACTAAT	GGCCCCCATC	300
GCCCCAGAAC	ATATGGGACT	CCAGAGCACC	TGGCCTCACC	CTCTCTACTG	350
TCAGTCCTGC	AGAATCAGCC	TCTGCTTGCT	TGTGTACCCCT	GAGGTGCCCT	400
CTCACTTTT	CCTTCAGGTT	CTCAGGGGAC	AGGCTGACCA	GGATCACCAG	450
GAAGCTCCAG	AGGATCCCCA	GGAGGCCCTA	GAGGAGCACC	AAAGGAGAAG	500
ATCTGTAAGT	AAGCCTTGT	TAGAGCCTCC	AAGGTTCACT	TTTAGCTGA	550
GGCTTCTCAC	ATGCTCCCTC	TCTCTCCAGG	CCAGTGGGTC	TCCATTGCC	600
AGCTCCTGCC	CACACTCCTG	CCTGTTGCCG	TGACCAGAGT	CGTC	644
ATG TCT CTT GAG CAG AAG AGT CAG CAC TGC AAG CCT GAG GAA					686
GGC CTT GAC ACC CAA GAA GAG CCC TGG GCC TGG TGG GTG TGC					728
AGG CTG CCA CTA CTG AGG AGC AGG AGG CTG TGT CCT CCT CCT					770
CTC CTC TGG TCC CAG GCA CCC TGG GGG AGG TGC CTG CTG CTG					812
GGT CAC CAG GTC CTC TCA AGA GTC CTC AGG GAG CCT CCG CCA					854
TCC CCA CTG CCA TCG ATT TCA CTC TAT GGA GGC AAT CCA TTA					896
AGG GCT CCA GCA ACC AAG AAG AGG AGG GGC CAA GCA CCT CCC					938
CTG ACC CAG AGT CTG TGT TCC GAG CAG CAC TCA GTA AGA AGG					980
TGG CTG ACT TGA					992
TTCATTTCT GCTCCTCAAG TATTAAGTCA AGGAGCCGGT CACAAAGGCA					1042
GAAATGCTGG AGAGCGTCAT CAAAAATTAC AAGCGCTGCT TTCCTGAGAT					1092
CTTCGGCAAAG GCCTCCGAGT CCTTGCAGCT GGTCTTGGC ATTGACGTGA					1142
AGGAAGCGGA CCCCACCCAGC AACACCTACA CCCTTGTAC CTGCCTGGGA					1192
CTCCTATGAT GGCTGGTGG TTTAATCAGA TCATGCCAA GACGGGCCTC					1242
CTGATAATCG TCTTGGGCAT GATTGCAATG GAGGGCAAAT GCGTCCCTGA					1292
GGAGAAAATC TGGGAGGAGC TGGGTGTGAT GAAGGTGTAT GTTGGGAGGG					1342
AGCACAGTGT CTGTGGGGAG CCCAGGAAGC TGCTCACCCA AGATTTGGTG					1392
CAGGAAAAGT ACCTGGAGTA CCGCAGGTGC CCAGCAGTGA TCCCCATATGC					1442
TATGAGTTAC TGTGGGGTCC AAGGGCACTC GCTGCTTGAA AGTACTGGAG					1492
CACGTGGTCA GGGTCAATGC AAGAGTTCTC ATTTCCCTACC CATCCCTGCA					1542
TGAAGCAGCT TTGAGAGAGG AGGAAGAGGG AGTCTGAGCA TGAGCTGCAG					1592
CCAGGGCCAC TGCAGGGGG GCTGGGCCAG TGCACCTTCC AGGGCTCCGT					1642
CCAGTAGTTT CCCCTGCCCTT AATGTGACAT GAGGCCATT CTTCTCTCTT					1692
TGAAGAGAGC AGTCAACATT CTTAGTAGTG GGTTTCTGTT CTATTGGATG					1742
ACTTTGAGAT TTGTCTTGT TTCCCTTTGG AATTGTTCAA ATGTTCTTT					1792
TAATGGGTGG TTGAATGAAC TTCAGCATTC AAATTTATGA ATGACAGTAG					1842

TCACACATAG	TGCTGTTAT	ATAGTTAGG	AGTAAGAGTC	TTGTTTTA	1892
TTCAGATTGG	GAAATCCATT	CCATTTGTG	AATTGGGACA	TAGTTACAGC	1942
AGTGGAAATAA	GTATTCACTT	AGAAATGTGA	ATGAGCAGTA	AAACTGATGA	1992
GATAAAGAAA	TTAAAAGATA	TTAACATTCTT	GCCTTATACT	CAGTCTATT	2042
GGTAAAATTT	TTTTTAAAAA	ATGTGCATAC	CTGGATTTCC	TTGGCTTCTT	2092
TGAGAATGTA	AGACAAATTA	AATCTGAATA	AATCATTCTC	CCTGTTCACT	2142
GGCTCATTAA	TTCTCTATGC	ACTGAGCATT	TGCTCTGTGG	AAGGCCCTGG	2192
GTAAATAGTG	GAGATGCTAA	GGTAAGCCAG	ACTCACCCCT	ACCCACAGGG	2242
TAGTAAAGTC	TAGGAGCAGC	AGTCATATAA	TTAAGGTGGA	GAGATGCCCT	2292
CTAAGATGTA	GAG				2305

(2) INFORMATION FOR SEQUENCE ID NO: 18:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 225 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (ix) FEATURE:
 - (A) NAME/KEY: MAGE-6 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

TAT	TTC	TTT	CCT	GTG	ATC	TTC	AGC	AAA	GCT	TCC	GAT	TCC	TTG	42
CAG	CTG	GTC	TTT	GGC	ATC	GAG	CTG	ATG	GAA	GTG	GAC	CCC	ATC	84
GGC	CAC	GTG	TAC	ATC	TTT	GCC	ACC	TGC	CTG	GGC	CTC	TCC	TAC	126
GAT	GGC	CTG	CTG	GGT	GAC	AAT	CAG	ATC	ATG	CCC	AGG	ACA	GGC	168
TTC	CTG	ATA	ATC	ATC	CTG	GCC	ATA	ATC	GCA	AGA	GAG	GGC	GAC	210
TGT	GCC	CCT	GAG	GAG										225

(2) INFORMATION FOR SEQUENCE ID NO: 19:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 1947 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: genomic DNA
- (ix) FEATURE:
 - (A) NAME/KEY: MAGE-7 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

TGAATGGACA	ACAAGGGCCC	CACACTCCCC	AGAACACAAG	GGACTCCAGA	50
GAGCCCAGCC	TCACCTTCCC	TACTGTCAGT	CCTGCAGCCT	CAGCCTCTGC	100
TGGCCGGCTG	TACCCCTGAGG	TGCCCTCTCA	CTTCCTCCTT	CAGGTTCTCA	150
GCGGACAGGC	CGGCCAGGAG	GTCAGAAGCC	CCAGGAGGCC	CCAGAGGAGC	200

ACCGAAGGAG AAGATCTGTA AGTAGGCCTT TGTTAGGGCC TCCAGGGCGT	250
GGTCACAAA TGAGGCCCT CACAAGCTCC TTCTCTCCCC AGATCTGTGG	300
GTTCTCCCCC ATCGCCCAGC TGCTGCCCGC ACTCCAGCCT GCTGCCCTGA	350
CCAGAGTCAT CATGTCTTCT GAGCAGAGGA GTCAGCACTG CAAGCCTGAG	400
GATGCCTGAG GGCCCAAGGA CAGGAGGCTC TGGGCCTGGT GGGTGCGCAG	450
GCTCCGCCA CCGAGGAGCA CGAGGCTGCC TCCTCCTTCA CTCTGATTGA	500
AGGCACCCCTG GAGGAGGTGC CTGCTGCTGG GTCCCCCAGT CCTCCCTGAG	550
GTCTCAGGGT TCCTCCTTT CCCTGACCAC CAGCAACAAAC ACTCTATGGA	600
GCCAATCCAG TGAGGGCACC AGCAGCCGGG AAGAGGAGGG GCCAACCAACC	650
TAGACACACC CCGCTCACCT GGCCTCCTTG TTCCA	685
ATG GGA AGG TGG CTG AGT TGG TTC GCT TCC TGC TGC ACA AGT	727
ATC GAG TCA AGG AGC TGG TCA CAA AGG CAG AAA TGC TGG ACA	769
G TG TCA TCA AAA ATT ACA AGC ACT AGT TTC CTT GTG ATC TAT	811
GGC AAA GCC TCA GAG TGC ATG CAG GTG ATG TTT GGC ATT GAC	853
ATG AAG GAA GTG GAC CCC GCG GCC ACT CCT ACG TCC TTG TCA	895
CCT GCT TGG GCC TCT CCT ACA ATG GCC TGC TGG GTG ATG ATC	937
AGA GCA TGC CCG AGA CCG GCC TTC TGA	964
TTATGGTCTT GACCATGATC TTAATGGAGG GCCACTGTGC CCCTGAGGAG	1014
GCAATCTGGG AAGCGTTGAG TGTAAATGGTG TATGATGGGA TGGAGCAGTT	1064
TCTTTGGGCA GCTGAGGAAG CTGCTCACCC AAGATTGGGT GCAGGAAAAC	1114
TACCTGCAAT ACCGCCAGGT GCCCAGCAGT GATCCCCCGT GCTACCAGTT	1164
CCTGTGGGGT CCAAGGGCCC TCATTGAAAC CAGCTATGTG AAAGTCCTGG	1214
AGTATGCAGC CAGGGTCAGT ACTAAAGAGA GCATTTCTA CCCATCCCTG	1264
CATGAAGAGG CTTTGGGAGA GGAGGAAGAG GGAGTCTGAG CAGAAGTTGC	1314
AGCCAGGGCC AGTGGGGCAG ATTGGGGAG GGCCTGGGCA GTGCACGTTC	1364
CACACATCCA CCACCTTCCC TGTCTGTAA CATGAGGCC ATTCTTCACT	1414
CTGTGTTGA AGAGAGCAGT CAATGTTCTC AGTAGCGGGG AGTGTGTTGG	1464
GTGTGAGGGA ATACAAGGTG GACCATCTCT CAGTTCTGT TCTCTTGGGC	1514
GATTGAGGAGG TTTATCTTG TTTCTTTG CAGTCGTTCA AATGTTCTT	1564
TTAATGGATG GTGTAATGAA CTTCAACATT CATTTCATGT ATGACAGTAG	1614
GCAGACTTAC TGTTTTTAT ATAGTTAAA GTAAGTGCAT TGTTTTTAT	1664
TTATGTAAGA AAATCTATGT TATTCTTGAA ATTGGGACAA CATAACATAG	1714
CAGAGGATTA AGTACCTTT ATAATGTGAA AGAACAAAGC GGTAAAATGG	1764
GTGAGATAAA GAAATAAAGA AATTAAATTG GCTGGGCACG GTGGCTCACG	1814
CCTGTAATCC CAGCACTTTA GGAGGCAGAG GCACGGGGAT CACGAGGTCA	1864
GGAGATCGAG ACCATTCTGG CTAACACAGT GAAACACCAT CTCTATTAAA	1914
AATACAAAC TTAGCCGGGC GTGGTGGCGG GTG	1947

(2) INFORMATION FOR SEQUENCE ID NO: 20:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 1810 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: genomic DNA
- (ix) FEATURE:
 - (A) NAME/KEY: MAGE-8 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

GAGCTCCAGG	AACCAGGCTG	TGAGGTCTTG	GTCTGAGGCA	GTATCTCAA	50
TCACAGAGCA	TAAGAGGCC	AGGCAGTAGT	AGCAGTCAAG	CTGAGGGTGGT	100
GTTCACCCCTG	TATGTATAACC	AGAGGCCCT	CTGGCATCAG	AACAGCAGGA	150
ACCCCACAGT	TCCTGGCCCT	ACCAGCCCTT	TTGTCAGTCC	TGGAGCCTTG	200
GCCTTGCCA	GGAGGCTGCA	CCCTGAGATG	CCCTCTCAAT	TTCTCCTTCA	250
GGTCGCGAGA	GAACAGGCCA	GCCAGGAGGT	CAGGAGGCC	CAGAGAACGA	300
CTGAAGAAGA	CCTGTAAGTA	GACCTTTGTT	AGGGCATCCA	GGGTGTAGTA	350
CCCAGCTGAG	GCCTCTCACAA	CGCTTCCTCT	CTCCCCAGGC	CTGTGGGTCT	400
CAATTGCCCA	GCTCCGGCCC	ACACTCTCCT	GCTGCCCTGA	CCTGAGTCAT	450
C					451
ATG CTT CTT GGG CAG AAG AGT CAG CGC TAC AAG GCT GAG GAA					493
GGC CTT CAG GCC CAA GGA GAG GCA CCA GGG CTT ATG GAT GTG					535
CAG ATT CCC ACA GCT GAG GAG CAG AAG GCT GCA TCC TCC TCC					577
TCT ACT CTG ATC ATG GGA ACC CTT GAG GAG GTG ACT GAT TCT					619
GGG TCA CCA AGT CCT CCC CAG AGT CCT GAG GGT GCC TCC TCT					661
TCC CTG ACT GTC ACC GAC AGC ACT CTG TGG AGC CAA TCC GAT					703
GAG GGT TCC AGC AGC AAT GAA GAG GAG GGG CCA AGC ACC TCC					745
CCG GAC CCA GCT CAC CTG GAG TCC CTG TTC CGG GAA GCA CTT					787
GAT GAG AAA GTG GCT GAG TTA GTT CGT TTC CTG CTC CGC AAA					829
TAT CAA ATT AAG GAG CCG GTC ACA AAG GCA GAA ATG CTT GAG					871
AGT GTC ATC AAA AAT TAC AAG AAC CAC TTT CCT GAT ATC TTC					913
AGC AAA GCC TCT GAG TGC ATG CAG GTG ATC TTT GGC ATT GAT					955
GTG AAG GAA GTG GAC CCT GCC GGC CAC TCC TAC ATC CTT GTC					997
ACC TGC CTG GGC CTC TCC TAT GAT GGC CTG CTG GGT GAT GAT					1039
CAG AGT ACG CCC AAG ACC GGC CTC CTG ATA ATC GTC CTG GGC					1081
ATG ATC TTA ATG GAG GGC AGC CGC GCC CCG GAG GAG GCA ATC					1123
TGG GAA GCA TTG AGT GTG ATG GGG GCT GTA TGA					1156
TGGGAGGGAG CACAGTGTCT ATTGGAAGCT CAGGAAGCTG CTCACCCAAG					1206
AGTGGGTGCA GGAGAACTAC CTGGAGTACC GCCAGGCGCC CGGCAGTGAT					1256
CCTGTGCGCT ACGAGTTCT GTGGGGTCCA AGGGCCCTTG CTGAAACCAG					1306
CTATGTGAAA GTCCTGGAGC ATGTGGTCAG GGTCAATGCA AGAGTCGCA					1356
TTTCCTACCC ATCCCTGCAT GAAGAGGCTT TGGGAGAGGA GAAAGGAGTT					1406
TGAGCAGGAG TTGCAGCTAG GCCCAGTGGG GCAGGTTGTG GGAGGGCCTG					1456
GGCCAGTGCA CGTTCCAGGG CCACATCCAC CACTTCCCT GCTCTGTTAC					1506
ATGAGGCCCA TTCTTCACTC TGTGTTGAA GAGAGCAGTC ACAGTTCTCA					1556
GTAGTGGGGA GCATGTTGGG TGTGAGGGAA CACAGTGTGG ACCATCTCTC					1606
AGTTCTGTGTT CTATTGGCG ATTGGAGGT TTATCTTGT TTCCCTTTGG					1656
AATTGTTCCA ATGTTCCCTC TAATGGATGG TGTAATGAAC TTCAACATTC					1706
ATTTATGTA TGACAGTAGA CAGACTTACT GCTTTTATA TAGTTTAGGA					1756
GTAAGAGTCT TGCTTTCAT TTAACTGGG AAACCCATGT TATTCTTGA					1806
ATTC					1810

(2) INFORMATION FOR SEQUENCE ID NO: 21:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 1412 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: genomic DNA
- (ix) FEATURE:

(A) NAME/KEY: MAGE-9 gene
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

TCTGAGACAG	TGTCCTCAGG	TCGCAGAGCA	GAGGAGACCC	AGGCAGTGTC	50
AGCAGTGAAG	GTGAAGTGT	CACCCCTGAAT	GTGCACCAAG	GGCCCCCACCT	100
GCCCCAGCAC	ACATGGGACC	CCATAGCACC	TGGCCCCATT	CCCCCTACTG	150
TCACTCATAG	AGCCTTGATC	TCTGCAGGCT	AGCTGCACGC	TGAGTAGGCC	200
TCTCACTTCC	TCCCTCAGGT	TCTCGGGACA	GGCTAACCAAG	GAGGACAGGA	250
GCCCCAAAGAG	GCCCCAGAGC	AGCACTGACG	AAGACCTGTA	AGTCAGCCTT	300
TGTTAGAACCC	TCCAAGGTT	GGTCTCAGC	TGAAGTCTCT	CACACACTCC	350
CTCTCTCCCC	AGGCCTGTGG	GTCTCCATCG	CCCAGCTCCT	GCCCACGCTC	400
CTGACTGCTG	CCCTGACCAAG	AGTCATC			427
ATG TCT CTC GAG CAG AGG AGT CCG CAC TGC AAG CCT GAT GAA					469
GAC CTT GAA GCC CAA GGA GAG GAC TTG GGC CTG ATG GGT GCA					511
CAG GAA CCC ACA GGC GAG GAG GAG ACT ACC TCC TCC TCT					553
GAC AGC AAG GAG GAG GTG TCT GCT GCT GGG TCA TCA AGT					595
CCT CCC CAG AGT CCT CAG GGA GGC GCT TCC TCC TCC ATT TCC					637
GTC TAC TAC ACT TTA TGG AGC CAA TTC GAT GAG GGC TCC AGC					679
AGT CAA GAA GAG GAA GAG CCA AGC TCC TCG GTC GAC CCA GCT					721
CAG CTG GAG TTC ATG TTC CAA GAA GCA CTG AAA TTG AAG GTG					763
GCT GAG TTG GTT CAT TTC CTG CTC CAC AAA TAT CGA GTC AAG					805
GAG CCG GTC ACA AAG GCA GAA ATG CTG GAG AGC GTC ATC AAA					847
AAT TAC AAG CGC TAC TTT CCT GTG ATC TTC GGC AAA GCC TCC					889
GAG TTC ATG CAG GTG ATC TTT GGC ACT GAT GTG AAG GAG GTG					931
GAC CCC GCC GGC CAC TCC TAC ATC CTT GTC ACT GCT CTT GGC					973
CTC TCG TGC GAT AGC ATG CTG GGT GAT GGT CAT AGC ATG CCC					1015
AAG GCC GCC CTC CTG ATC ATT GTC CTG GGT GTG ATC CTA ACC					1057
AAA GAC AAC TGC GCC CCT GAA GAG GTT ATC TGG GAA GCG TTG					1099
AGT GTG ATG GGG GTG TAT GTT GGG AAG GAG CAC ATG TTC TAC					1141
GGG GAG CCC AGG AAG CTG CTC ACC CAA GAT TGG GTG CAG GAA					1183
AAC TAC CTG GAG TAC CGG CAG GTG CCC GGC AGT GAT CCT GCG					1225
CAC TAC GAG TTC CTG TGG GGT TCC AAG GCC CAC GCT GAA ACC					1267
AGC TAT GAG AAG GTC ATA AAT TAT TTG GTC ATG CTC AAT GCA					1309
AGA GAG CCC ATC TGC TAC CCA TCC CTT TAT GAA GAG GTT TTG					1351
GGA GAG GAG CAA GAG GGA GTC TGA					1375
GCACCAGCCG CAGCCGGGGC CAAAGTTTGT GGGGTCA					1412

(2) INFORMATION FOR SEQUENCE ID NO: 22:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 920 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: genomic DNA
- (ix) FEATURE:
 - (A) NAME/KEY: MAGE-10 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

ACCTGCTCCA	GGACAAAGTG	GACCCCCTG	CATCAGCTCC	ACCTACCCTA	50
CTGTCAGTCC	TGGAGCCTTG	GCCTCTGCCG	GCTGCATCCT	GAGGAGCCAT	100
CTCTCACTTC	CTTCTTCAGG	TTCTCAGGGG	ACAGGGAGAG	CAAGAGGTCA	150
AGAGCTGTGG	GACACCACAG	AGCAGCACTG	AAGGAGAAGA	CCTGTAAGTT	200
GGCCTTGTT	AGAACCTCCA	GGGTGTGGTT	CTCAGCTGTG	GCCACTTACA	250
CCCTCCCTCT	CTCCCCAGGC	CTGTGGGTCC	CCATCGCCCA	AGTCCTGCC	300
ACACTCCCAC	CTGCTACCCCT	GATCAGAGTC	ATC		333
ATG CCT CGA GCT CCA AAG CGT CAG CGC TGC ATG CCT GAA GAA					375
GAT CTT CAA TCC CAA AGT GAG ACA CAG GGC CTC GAG GGT GCA					417
CAG GCT CCC CTG GCT GTG GAG GAT GCT TCA TCA TCC ACT					459
TCC ACC AGC TCC TCT TTT CCA TCC TCT TTT CCC TCC TCC TCC					501
TCT TCC TCC TCC TCC TGC TAT CCT CTA ATA CCA AGC ACC					543
CCA GAG GAG GTT TCT GCT GAT GAT GAG ACA CCA AAT CCT CCC					585
CAG AGT GCT CAG ATA GCC TGC TCC TCC CCC TCG GTC GTT GCT					627
TCC CTT CCA TTA GAT CAA TCT GAT GAG GGC TCC AGC AGC CAA					669
AAG GAG GAG AGT CCA AGC ACC CTA CAG GTC CTG CCA GAC AGT					711
GAG TCT TTA CCC AGA AGT GAG ATA GAT GAA AAG GTG ACT GAT					753
TTG GTG CAG TTT CTG CTC TTC AAG TAT CAA ATG AAG GAG CCG					795
ATC ACA AAG GCA GAA ATA CTG GAG AGT GTC ATA AAA AAT TAT					837
GAA GAC CAC TTC CCT TTG TTG TTT AGT GAA GCC TCC GAG TGC					879
ATG CTG CTG GTC TTT GGC ATT GAT GTA AAG GAA GTG GAT CC					920

(2) INFORMATION FOR SEQUENCE ID NO: 23:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 1107 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: genomic DNA
- (ix) FEATURE:
 - (A) NAME/KEY: MAGE-11 gene
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

AGAGAACAGG	CCAACCTGGA	GGACAGGAGT	CCCAGGAGAA	CCCAGAGGAT	50
CACTGGAGGA	GAACAAGTGT	AAAGTAGGCCT	TTGTTAGATT	CTCCATGGTT	100
CATATCTCAT	CTGAGTCTGT	TCTCACGCTC	CCTCTCTCCC	CAGGCTGTGG	150
GGCCCCATCA	CCCAGATATT	TCCCACAGTT	CGGCCTGCTG	ACCTAACAG	200
AGTCATCATG	CCTCTTGAGC	AAAGAAGTCA	GCACTGCAAG	CCTGAGGAAG	250
CCTTCAGGCC	CAAGAAGAAG	ACCTGGGCCT	GGTGGGTGCA	CAGGCTCTCC	300
AAGCTGAGGA	GCAGGGAGGCT	GCCTTCTTCT	CCTCTACTCT	GAATGTGGGC	350
ACTCTAGAGG	AGTTGCCTGC	TGCTGAGTCA	CCAAGTCCTC	CCCAGAGTCC	400
TCAGGAAGAG	TCCTTCTCTC	CCACTGCCAT	GGATGCCATC	TTTGGGAGCC	450
TATCTGATGA	GGGCTCTGGC	AGCCAAGAAA	AGGAGGGGCC	AAGTACCTCG	500
CCTGACCTGA	TAGACCCTGA	GTCCCTTTCC	CAAGATATAAC	TACATGACAA	550
GATAATTGAT	TTGGTTCAT	TATTCTCCGC	AAGTATCGAG	TCAAGGGCT	600
GATCACAAAG	GCAGAA				616
ATG CTG GGG AGT GTC ATC AAA AAT TAT GAG GAC TAC TTT CCT					658
GAG ATA TTT AGG GAA GCC TCT GTA TGC ATG CAA CTG CTC TTT					700

GGC ATT GAT GTG AAG GAA GTG GAC CCC ACT AGC CAC TCC TAT	742
GTC CTT GTC ACC TCC CTC AAC CTC TCT TAT GAT GGC ATA CAG	784
TGT AAT GAG CAG AGC ATG CCC AAG TCT GGC CTC CTG ATA ATA	826
GTC CTG GGT GTA ATC TTC ATG GAG GGG AAC TGC ATC CCT GAA	868
GAG GTT ATG TGG GAA GTC CTG AGC ATT ATG GGG GTG TAT GCT	910
GGA AGG GAG CAC TTC CTC TTT GGG GAG CCC AAG AGG CTC CTT	952
ACC CAA AAT TGG GTG CAG GAA AAG TAC CTG GTG TAC CGG CAG	994
GTG CCC GGC ACT GAT CCT GCA TGC TAT GAG TTC CTG TGG GGT	1036
CCA AGG GCC CAC GCT GAG ACC AGC AAG ATG AAA GTT CTT GAG	1078
TAC ATA GCC AAT GCC AAT GGG AGG GAT CC	1107



(2) INFORMATION FOR SEQUENCE ID NO: 24:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2150 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: genomic DNA

(ix) FEATURE:

- (A) NAME/KEY: smage-I

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

TCTGTCTGCA	TATGCCTCCA	CTTGTGTGTA	GCAGTCTCAA	ATGGATCTCT	50
CTCTACAGAC	CTCTGTCTGT	GTCGGCACCC	CTAAAGTGGCT	TTGCATGGGC	100
ACAGGTTTCT	GCCCCCTGCAT	GGAGCTTAAA	TAGATCTTTC	TCCACAGGCC	150
TATACCCCTG	CATTGTAAGT	TTAAGTGGCT	TTATGTGGAT	ACAGGTCTCT	200
GCCCTTGTAT	GCAGGGCTAA	GTTCCTCTGT	CTGCTTAACC	CCTCCAAGTG	250
AAGCTAGTGA	AAGATCTAAC	CCACTTTGG	AAGTCTGAAA	CTAGACTTTT	300
ATGCAGTGGC	CTAACAAAGTT	TTAATTCTT	CCACAGGGTT	TGCAGAAAAG	350
AGCTTGATCC	ACGAGTTCAAG	AAAGTCCTGGT	ATGTTCTAG	AAAG	394
ATG TTC TCC TGG AAA GCT TCA AAA GCC AGG TCT CCA TTA AGT					436
CCA AGG TAT TCT CTA CCT GGT AGT ACA GAG GTA CTT ACA GGT					478
TGT CAT TCT TAT CCT TCC AGA TTC CTG TCT GCC AGC TCT TTT					520
ACT TCA GCC CTG AGC ACA GTC AAC ATG CCT AGG GGT CAA AAG					565
AGT AAG ACC CGC TCC CGT GCA AAA CGA CAG CAG TCA CGC AGG					604
GAG GTT CCA GTA GTT CAG CCC ACT GCA GAG GAA GCA GGG TCT					646
TCT CCT GTT GAC CAG AGT GCT GGG TCC AGC TTC CCT GGT GGT					688
TCT GCT CCT CAG GGT GTG AAA ACC CCT GGA TCT TTT GGT GCA					730
GGT GTA TCC TGC ACA GGC TCT GGT ATA GGT GGT AGA AAT GCT					772
GCT GTC CTG CCT GAT ACA AAA AGT TCA GAT GGC ACC CAG GCA					814
GGG ACT TCC ATT CAG CAC ACA CTG AAA GAT CCT ATC ATG AGG					856
AAG GCT AGT GTG CTG ATA GAA TTC CTG CTA GAT AAA TTT AAG					898
ATG AAA GAA GCA GTT ACA AGG AGT GAA ATG CTG GCA GTA GTT					940
AAC AAG AAG TAT AAG GAG CAA TTC CCT GAG ATC CTC AGG AGA					982
ACT TCT GCA CGC CTA GAA TTA GTC TTT GGT CTT GAG TTG AAG					1024
GAA ATT GAT CCC AGC ACT CAT TCC TAT TTG CTG GTA GGC AAA					1066
CTG GGT CTT TCC ACT GAG GGA AGT TTG AGT AGT AAC TGG GGG					1108
TTG CCT AGG ACA GGT CTC CTA ATG TCT GTC CTA GGT GTG ATC					1150
TTC ATG AAG GGT AAC CGT GCC ACT GAG CAA GAG GTC TGG CAA					1192
TTT CTG CAT GGA GTG GGG GTA TAT GCT GGG AAG AAG CAC TTG					1234
ATC TTT GGC GAG CCT GAG GAG TTT ATA AGA GAT GTA GTG CGG					1276
GAA AAT TAC CTG GAG TAC CGC CAG GTA CCT GGC AGT GAT CCC					1314
CCA AGC TAT GAG TTC CTG TGG GGA CCC AGA GCC CAT GCT GAA					1360
ACA ACC AAG ATG AAA GTC CTG GAA GTT TTA GCT AAA GTC AAT					1402
GGC ACA GTC CCT AGT GCC TTC CCT AAT CTC TAC CAG TTG GCT					1444
CTT AGA GAT CAG GCA GGA GGG GTG CCA AGA AGG AGA GTT CAA					1486
GGC AAG GGT GTT CAT TCC AAG GCC CCA TCC CAA AAG TCC TCT					1528
AAC ATG TAG					1537
TTGAGTCTGT TCTGTTGTGT TTGAAAAACA GTCAGGCTCC TAATCAGTAG					1587
AGAGTTCATATA GCCTACCAGA ACCAACATGC ATCCATTCTT GGCCCTGTTAT					1637
ACATTAGTAG AATGGAGGCT ATTTTGTAA CTTTCAAAT GTTTGTTAA					1687

CTAACACAGTG	CTTTTGCCA	TGCTTCTTGT	TAAC TGCATA	AAGAGGTAAC	1737
TGTCACTTGT	CAGATTAGGA	CTTGTGTTGT	TATTTGCAAC	AAACTGGAAA	1787
ACATTATTTT	GTTTTTACTA	AAACATTGTG	TAACATTGCA	TTGGAGAAGG	1837
GATTGTCATG	GCAATGTGAT	ATCATACTAGT	GGT GAAACAA	CAGTGAAGTG	1887
GGAAAGTTA	TATTGTTAAT	TTT GAAAATT	TTATGAGTGT	GATTGCTGTA	1937
TACTTTTTC	TTTTTGTAT	AATGCTAAGT	GAAATAAAGT	TGGATTGAT	1987
GACTTTACTC	AAATTCTTA	GAAAGTAAAT	CGT AAAACTC	TATTACTTTA	2037
TTATTTCTT	CAATTATGAA	TTAAGCATG	GTTATCTGGA	AGTTTCTCCA	2087
GTAGCACAGG	ATCTAGTATG	AAATGTATCT	AGTATAGGCA	CTGACAGTGA	2137
GTTATCAGAG	TCT				2150

(2) INFORMATION FOR SEQUENCE ID NO: 25:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 2099 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: genomic DNA
- (ix) FEATURE:
 - (A) NAME/KEY: smage-II
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

ACCTTATTGG	GTCTGTCTGC	ATATGCCTCC	ACTTGTGTGT	AGCAGTCTCA	50
AATGGATCTC	TCTCTACAGA	CCTCTGTCTG	TGTCTGGCAC	CCTAAGTGGC	100
TTTGCATGGG	CACAGGTTTC	TGCCCTGTCA	TGGAGCTTAA	ATAGATCTTT	150
CTCCACAGGC	CTATACCCCT	GCATTGTAAG	TTTAAGTGGC	TTTATGTGGA	200
TACAGGTCTC	TGCCCTTGTA	TGCAGGCCA	AGTTTTCTG	TCTGCTTAGC	250
CCCTCCAAGT	GAAGCTAGTG	AAAGATCTAA	CCCACTTTG	GAAGTCTGAA	300
ACTAGACTTT	TATGCAGTGG	CCTAACAAAGT	TTTAATTCT	TCCACAGGGT	350
TTGCAGAAAA	GAGCTTGATC	CACGAGTTCG	GAAGTCCTGG	TATGTTCTA	400
GAAAGATGTT	CTCCTGGAAA	GCTCAAAAG	CCAGGTCTCC	ATTAAGTCCA	450
AGGTATTCTC	TACCTGGTAG	TACAGAGGT	CTTACAGGTT	GTCATTCTTA	500
TCTTCCAGA	TTCTGTCTG	CCAGCTCTT	TACTTCAGCC	CTGAGCACAG	550
TCAACATGCC	TAGGGTCAA	AAGAGTAAGA	CCCGCTCCCG	TGCAAAACGA	600
CAGCAGTCAC	GCAGGGAGGT	TCCAGTAGTT	CAGCCCCTG	CAGAGGAAGC	650
AGGGTCTTCT	CCTGTTGACC	AGAGTGTGG	GTCCAGCTTC	CCTGGTGGTT	700
CTGCTCCTCA	GGGTGTGAAA	ACCCCTGGAT	CTTTGGTGC	AGGTGTATCC	750
TGCACAGGCT	CTGGTATAGG	TGGTAGAAAT	GCTGCTGTCC	TGCCTGATAC	800
AAAAAGTTCA	GATGGCACCC	AGGCAGGGAC	TTCCATTCA	CACACACTGA	850
AAGATCCTAT	CATGAGGAAG	GCTAGTGTGC	TGATAGAATT	CCTGCTAGAT	900
AAGTTTAAGA	TGAAAGAAGC	AGTTACAAGG	AGT GAAATGC	TGGCAGTAGT	950
TAACAAGAAG	TATAAGGAGC	AATTCCCTGA	GATCCTCAGG	AGAACCTCTG	1000
CACGCCTAGA	ATTAGTCTTT	GGTCTTGAGT	TGAAGGAAAT	TGATCCCAGC	1050
ACTCATTCT	ATTGCTGGT	AGGCAAACG	GGTCTTCCA	CTGAGGGAAAG	1100
TTTGAGTAGT	AACTGGGGGT	TGCTTAGGAC	AGGTCTCCTA	ATGTCTGTCC	1150
TAGGTGTGAT	CTTCATGAAG	GGTAACCGTG	CCACTGAGCA	AGAGGTCTGG	1200
CAATTCTGC	ATGGAGTGGG	GGTATATGCT	GGGAAGAAGC	ACTTGATCTT	1250
TGGCGAGCCT	GAGGAGTTA	TAAGAGATGT	AGTGCAGGGAA	AATTACCTGG	1300
AGTACCGCCA	GGTACCTGGC	AGTGATCCCC	CAAGCTATGA	GTTCTGTGG	1350

GGACCCAGAG CCCATGCTGA AACAAACCAAG ATGAAAGTCC TGGAAGTTTT	1400
AGCTAAAGTC AATGGCACAG TCCCTAGTGC CTTCCCTAAT CTCTACCAGT	1450
TGGCTCTTAG AGATCAGGCA GGAGGGGTGC CAAGAAGGAG AGTTCAAGGC	1500
AAGGGTGTTC ATTCCAAGGC CCCATCCCAA AAGTCCTCTA ACATGTAGTT	1550
GAGTCTGTTC TGTTGTGTTT GAAAAACAGT CAGGCTCCTA ATCAGTAGAG	1600
AGTCATAGC CTACCAGAAC CAACATGCAT CCATTCTTGG CCTGTTATAC	1650
ATTAGTAGAA TGGAGGCTAT TTTGTTACT TTTCAAATGT TTGTTTAACT	1700
AAACAGTGCT , TTTGCCATG CTTCTTGTAA ACTGCATAAA GAGGTAACTG	1750
TCACCTGTCA GATTAGGACT TGTTTGTTA TTTGCAACAA ACTGGAAAAC	1800
ATTATTTGT TTTTACTAAA ACATTGTGTA ACATTGCATT GGAGAAGGGA	1850
TTGTCATGGC AATGTGATAT CATACTGG TGAAACAACA GTGAAGTGGG	1900
AAAGTTTATA TTGTTAGTTT TGAAAATTAA ATGAGTGTGA TTGCTGTATA	1950
CTTTTTCTT TTTGTATAA TGCTAAGTGA AATAAAAGTTG GATTGATGA	2000
CTTTACTCAA ATTCAATTAGA AAGTAAATCA TAAAACCTCTA TTACTTTATT	2050
ATTTCTTCA ATTATTAATT AAGCATTGGT TATCTGGAAG TTTCTCCAG	2099

H2

(2) INFORMATION FOR SEQUENCE ID NO: 26:

- Concluded*
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 9 amino acids
 - (B) TYPE: amino acids
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

Glu Ala Asp Pro Thr Gly His Ser Tyr
5

(2) INFORMATION FOR SEQUENCE ID NO: 27

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 20 nucleotides
 - (B) TYPE; nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:27

ACTCAGCTCC TCCCAGATT

20

(2) INFORMATION FOR SEQUENCE ID NO: 28

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 18 nucleotides
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE CHARACTERISTICS: SEQ ID NO: 28

TTGCCAAGAT CTCAGGAA

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